

Stage 1 - Fast Track Consent

Metlifecare Limited

TO: Dylan Pell, Michelle Kemp
FROM: Roshanak Rezaee

HG PROJECT NO: A2213426
DATE: 13 FEBRUARY 2023

1.0 INTRODUCTION

This report has been prepared by Harrison Grierson (HG) on behalf of Metlifecare Limited in support of a Fast-track Consent application for the proposed development located at 99 Totara Road, Whenuapai. The site is situated at the north-west of Totara Road and has a land area of approximately 8.95ha. The legal description of the site is PT Lot 3 DP 52677.

The purpose of this report is to provide an overview of the proposed infrastructure required to service the development and outline the design rationale. This report should be read in conjunction with the Fast-track Consent drawings hereto attached under Appendix. B existing site

The existing site area is irregular in shape and generally falling in a west-east direction along Waitemata Harbour' coastal edge.

The site levels range between RL14m in the middle of site to approximately RL4.5m on the northern boundary before falling to the Harbour which is at approximate RL 2m. The site covers a total area of approximately 8.95 ha.



FIGURE 1 – SITE LOCATION PLAN

2.0 MASTERPLAN SUMMARY

The proposal seeks to redevelop the existing site and make provision for the new Retirement Village. The development will make provision for new 110 Villas, 1 amenity building, 50 Care home staff & visitors. A proposed masterplan has been provided. For further detail refer to Appendix. A "Proposed Master Plan"

The masterplan yields 135 Independent Living Units (ILU's) and 50 Care Units.

The site under the Auckland Unitary Plan has the following listed zones and limitations:

Legal Description

PT LOT 3 DP 52677

Zone

Coastal - General Coastal Marine Zone

Future Urban Zone

Overlays

Natural Resources: Significant Ecological Areas Overlay - SEA-M2-57b, Marine 2

Natural Resources: High-Use Aquifer Management Areas Overlay [rp] - Kumeu Waitemata Aquifer

Controls

Controls: Coastal Inundation 1 per cent AEP Plus 1m Control-1m Sea level rise

Controls: Macroinvertebrate Community Index - Native

Controls: Macroinvertebrate Community Index - Rural

Designations

Designations: Airspace Restriction Designations - ID 4311, Defence purposes - protection of approach and departure paths (Whenuapai Air Base), Minister of Defence

3.0 EARTHWORKS

The proposal seeks to undertake earthworks across an area of approximately 5.5ha. An overall bulk earthworks plan has been developed utilising the provided master plan and HG Topo Survey topographic survey data. The earthworks have been designed to allow for the conveyance of all overland stormwater flows to the gully near the east boundary and towards Waitemata Harbour.

For the purpose of estimating earthworks volumes, we have assumed some finished floor levels (FFL) for the proposed buildings. The earthwork volumes are the difference between the existing ground contours (200mm topsoil strip has been considered) and the proposed finished design contours (no allowance for pavement thickness or fill under the floor levels and no allowance for bulking factors) based on the levels shown in Appendix. B Civil Drawing sheet A2213426-00-200,220 Rev.B.

From our earthwork assessment, the following volumes have been calculated.

The earthwork volume is a comparison of the 200mm stripped existing ground level to the proposed finished ground levels.

TABLE 1 – EARTHWORKS VOLUMES

Description	Volume (m³)
Cut Volume	17,429
Fill Volume	16,302
Net Fill	1,127
Max Cut Depth	2.25m
Max Fill Depth	3.12m

3.1 EROSION AND SEDIMENT CONTROL

3.1.1 GENERAL

In accordance with industry best practice and resource consent requirements, the implementation of erosion and sediment controls during the earthworks operation will be undertaken during the construction works.

Erosion and sediment control and site stabilisation during earthworks will be undertaken in accordance with the methodologies of Auckland Council Technical Publication No. 90 (TP 90 / GD 05). Earthworks undertaken in accordance with these guidelines will act to minimise and/or mitigate any adverse environmental effects of sediment discharge during the works through the appropriate use and design of erosion and sediment control techniques and measures.

The proposed erosion and sediment control methodology is detailed in the following sections. It is noted that the methodology may be subject to change depending on the Contractor's construction operation and phasing, which will be discussed with Council at the time of works.

A qualified and experienced Engineer will be appointed to monitor the sediment control measures on a regular basis (weekly) and after every significant rainfall event to ensure that the measures are being maintained to the correct standard and are in accordance with the erosion and sediment control plan. The Engineer will also undertake monitoring to ensure flocculation is occurring in accordance with the design prepared by the council approved environmental consultant.

3.1.2 PROPOSED CONTROLS

The proposed erosion and sediment control measures are as follows:

- Sediment Retention Pond (SRP)

One SRP will be installed to contain and direct the stormwater runoff towards the major existing gully. The pond will service a catchment of 2.63 ha and has a volume of 535.96.0 m³. for further information refer to Appendix. B, Sheets A2213426-00-240,241,242,243.

Refer to the calculations provided in Appendix C for further information.

- Decanting Earth Bunds/Runoff Diversion Channels

16 decant earth bunds will be installed to contain and direct the stormwater runoff towards the existing gully and the adjacent water courses. The maximum catchment for each earth bund will be 0.3 hectares.

- Silt Fences/Filter Socks

Silt fences will be installed around the site perimeter and along each side of the gully / stream area to control sediment discharges from the site. Mulched-filled filter socks will be used around nearby road catchpits (as required) and will be retained until sufficient stabilisation is achieved over the site; given that sediment laden runoff onto the roadways can invariably occur during the construction works.

- Stabilised Construction Access

Two stabilised construction access will be constructed as primary access point to the site. The positions will be where the existing site access is on the south-eastern corner of site and where the new vehicle crossing for the east group of villas. Facilities to enable wash down of vehicles i.e., water blaster as a minimum, may be used to ensure vehicles' tyres are cleaned down prior to exiting the site onto the adjacent roads to ensure sediment is not transported offsite.

- Retention of Existing Vegetated Areas / Cleanwater Runoff Diversion

Existing vegetation will be maintained over the site to minimise the amount of bare earth exposed or to provide a buffer/filtration strip where possible.

Upstream clean stormwater runoff will be channelled away from the earthworks area by cleanwater runoff diversions to reduce erosion and additional treatment to sediment ponds.

- Site Stabilisation

Once the subgrade levels are achieved, progressive site stabilisation will be undertaken and shall comprise:

- o Re-topsoiling in conjunction with grass seeding to establish grass cover over development lots and berms/reserve areas.
 - o Where necessary, areas will be stabilised by applying straw mulch in conjunction with topsoiling and grass seeding.
 - o Roading aggregates will be placed over road, footpath and accessway pavement areas as soon as practicable.
- Site stabilisation will reduce the time bare earth is exposed to erosive forces and ability for generation of sediment laden runoff. Perimeter controls will remain in place until adequate stabilisation is achieved over the site.

4.0 3 WATERS INFRASTRUCTURE

4.1 STORMWATER

4.1.1 STORMWATER MANAGEMENT PLAN

The Whenuapai Structure Plan (WSP) was prepared to support and promote the sustainable long-term urban development of Whenuapai based on WSD principals.

The stormwater management methods in the WSP seek to protect and promote the enhancement of streams and the harbour to mitigate the potential adverse effects of development. The methods broadly need to address two main issues:

- Water quality to maintain the health of waterways.
- Flood risk management and protection of people, property, and waterways.

We noticed there are two Stormwater Management Reports for Whenuapai 1 and Whenuapai 2, however this site, 99 Totara Road is not included in these two stormwater management reports. We propose to prepare a site's specific stormwater management plan by having a private stormwater network to drain all roof runoff and to be held in underground tanks which service several buildings each. This attenuation volume includes 5mm of rainwater over all roof areas. Pre-treatment will be provided for all trafficable stormwater runoff catchments. It is proposed to provide proprietary stormwater filter devices to service the trafficable areas. The driveways leading into each unit can be constructed with permeable concrete / paving. Please refer to Appendix. B drawings A2213426-00-460 – 462 for more details.

4.1.2 FLOODING AND OVERLAND FLOW PATHS

Auckland Council GeoMap shows several overland flow paths within the vicinity of the development. We have carried out an initial OLFP assessment to determine pre and post development flooding.

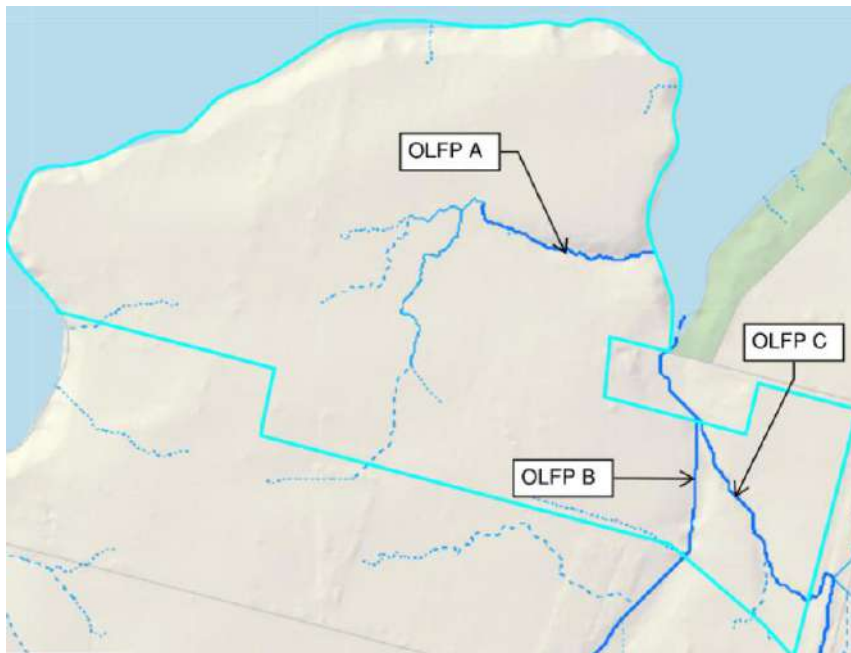


FIGURE 2 – OVERLAND FLOW PATHS FROM COUNCIL GEOMAPS 2022

- A major OLFP runs in an easterly direction across the site to a gully and then out to the harbour (OLFP A). The flow path has a flow of $1.33 \text{ m}^3/\text{s}$ at its start. Several OLFPs exist that run into OLFP A. The proposed realignment of these flow paths will flow around a central $1,260\text{m}^2$ building and join in the low point of the proposed road where it can then discharge through the gully. Please refer to A2213426-00-465 for further details. The FFL of this central building has been determined by allowing 500mm freeboard from where the flow paths meet at the low point in the road.
- Two major OLFP run in a northerly direction to a point where they join and discharge through a gully and out to the harbour (OLFP B and OLFP C). OLFP B has a flow of $9.29\text{m}^3/\text{s}$ and OLFP C has a flow of $6.77\text{m}^3/\text{s}$. When combined they have a flow of $14.85\text{m}^3/\text{s}$. These OLFPs will not be altered as there is no work proposed within the area (existing gullies). The existing culvert across OLFP B is to remain functional in order to convey this OLFP. Please refer to A2213426-00-468 cross section B for details of OLFP depth.
- Several minor flow paths exist around the northern perimeter of the site. These flow paths will be unaffected by the development and will discharge to the harbour.

4.1.3 STORMWATER NETWORK

The Auckland Council GIS map shows no existing public stormwater network serving the site.

An initial network reticulation sizing has been carried out for further information refer to Appendix. B, A2213426-00-402,401,402 Stormwater network reticulation. The stormwater network throughout the site is to run along the proposed carriageway and include a lot connection to each building. All stormwater will feed into three outlets which lead to the Waitemata Harbour. The proposed outlets will remain private.

4.2 WASTEWATER

The Auckland Council GIS map shows no public wastewater network currently serving the site or the adjacent sites along Totara Road.

A Desktop study of Auckland Council GIS Map reveals that the nearest existing public wastewater manhole / network is located at Totara Road & McCaw Avenue / Dale Road intersection that is approximately 1,700m away from the site. Also, AC GIS indicates the existing public wastewater manhole (at the above intersection) has invert level of RL 24.93. See Figure 3 below.



FIGURE 3 – EXISTING WASTEWATER SERVICE

Based on the difference in surface contours between the site and the public wastewater manhole, the highest contour within the site is approx. RL 13.5m and the lowest site contour is RL 4.5m while the invert level of the public manhole is RL 24.93m. This clearly demonstrates that a gravity network extension between the site and the existing public network is not an option since the site is at least 11m lower than the public manhole invert level.

Referring to Whenuapai Structure Plan – Section 7.7.2 suggests that parts of the northern catchment where the land contours slope towards the coastal edge, any proposed wastewater network will ideally follow the contours of the land and should flow to the lowest points on the coast and then be pumped back to the branch and trunk network. A series of small developer-provided local pump stations will therefore be required at intervals along the coast.

Given the site is located at the coastal edge and it is almost the lowest area within the northern part of the catchment, it is therefore anticipated a public pump station to pump sewage to another public pump station (or back to the gravity network) within the higher catchment so the site can be serviced.

MLC has been provided with a schematic diagram which shows the possible location of a public wastewater pump station within the adjacent NEIL Group landholding (south of the subject site) to serve the lower parts of the Totara Road catchment. Refer to Figure 3 (above). HG is coordinating the tie-in point with Neil Group to provide a public gravity wastewater connection to 99 Totara Road site.

Figure 4 (below) shows a possible future public pump station to be installed within the NZDF property along Totara Road which may form part of the series of pump stations as mentioned above in the WSP. This figure has been obtained from the Whenuapai Structure Plan.

Again, due to the levels of the existing site, having a gravity line from the subject site into this pump station will not be possible.

The proposed location of the pump station from the NEIL Group schematic plan is considered as a more definitive option for the pump station.

A proposed preliminary wastewater drainage network has been designed to convey the expected Peak Wet Weather Flows (PWWF), resulting from the development. For further information refer to Appendix. B Civil Set Sheets A2213426-00-410,411,412

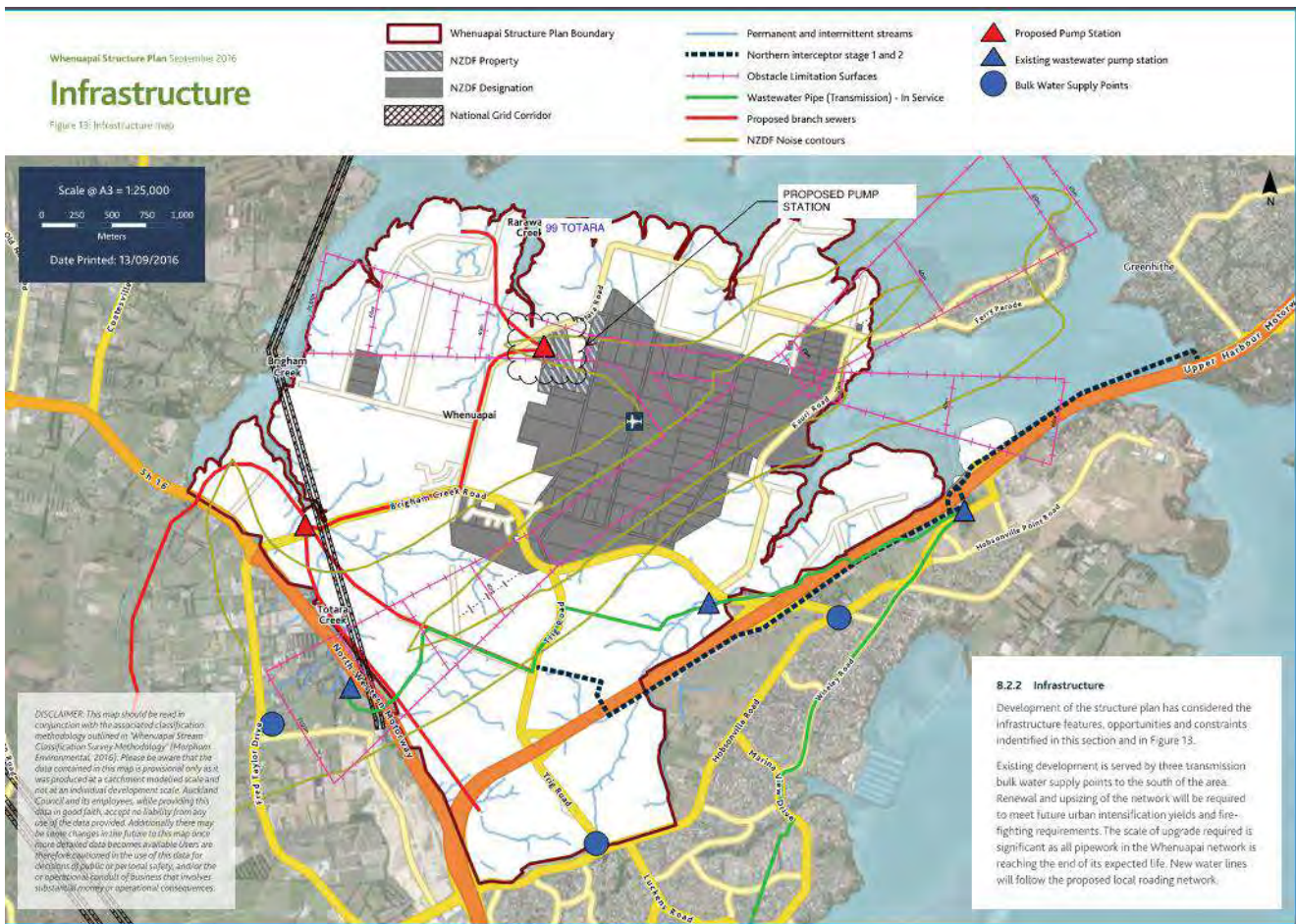


FIGURE 4 – WHENUAPAI STRUCTURE PLAN – WASTEWATER

Based on the proposed masterplan a yield of total 135 residential units and a care facility are proposed Referring to WSL CoP engineering standards, we carried out the calculation and for further information refer to Appendix. C

The PWWF from proposed development has been calculated to be totally 4.25800 l/s, this is based on WSLCoP requirements.

4.3 POTABLE WATER

Auckland Council GIS shows 150mm Dia. Watermain along Totara Road. According to Whenuapai Structure Plan, the transmission network servicing the Whenuapai area has good capacity to service the forecast growth in the short term.

The proposed development will be serviced by new water reticulation that connect to the existing 150mm dia watermain along Totara Road. The proposed site is to have its own private water supply and firefighting networks. The proposed water

reticulation plan has been provided and for further information please refer to Appendix. B, civil set sheets A2213426-00-550, 551,552

In case the existing 150mm dia. water main pipe will be insufficient to provide the development demand, A booster pump might need to be provided within the site to provide the sufficient required flow.

Alternatively, a new supply from the upgrade trunk mains at Dale Road would need to be provided along Totara Road.

Based on the proposed master plan a yield of 135 residential units and a care facility are proposed. HG has provided the Water Supply calculation, for further information please refer to Appendix. C. The estimated post-development peak water demand from the proposed development is 4.071/s.

All water supply reticulation will be designed and constructed in accordance with the Warercare Water and Wastewater Code of Practice for Land Development and Subdivision. The New Zealand Building Code and the New Zealand Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008. Whilst this assessment has been based on information to date which does not include water hydrant testing, it is deemed that this can be undertaken a necessary prior to building consent design phase of the project.

4.4 UTILITY SERVICES

4.4.1 POWER SUPPLY

Power supply for the proposed development will be connected from the existing power poles along Totara Road. All services will be laid within the accessway area. The Topo survey shows 8 existing power poles within this site, it is proposed to remove and transfer all the above ground power poles to the underground services within the site all power reticulation works will be carried out in accordance with New Zealand Standard – Land Development and Subdivision Infrastructure NZS 4404:2010 and Vector's requirements. For further information please refer to Appendix. D, B4Udig email.

4.4.2 TELECOMMUNICATIONS

Telecommunication supply will be connected from the existing below ground telecommunication reticulation and fibre network as available and in accordance with Spark/Chorus requirements. All services will be laid within the accessway area and taken to the building. For further information please refer to Appendix. D, B4Udig Plans.

6.0 CONCLUSION

Harrison Grierson have been requested by Metlifecare Ltd (MLC) to provide, a fast-track consent infrastructure report, for 99 Totara Road, Whenuapai. The site is situated at the north-west of Totara Road and has a land area of approximately 8.95ha.

The masterplan yields 135 Independent Living Units (ILU's) and 50 Care Units and staffs. An initial earthwork assessment, the following volumes have been calculated, the net volume for cut is approximately 1,127m³.

The proposed development will be accessed via new accessway of way from Totara Road, two proposed vehicle crossings will be constructed, as per Auckland Transport Standards.

3 water infrastructure assessments have been carried out in accordance with the existing site condition and Whenuapai structure plan.

Services will be provided to the proposed development off the existing utility services along Totara Road.

Appendix A

PROPOSED SITE MASTER PLAN

WHENUAPAI METLIFECARE
RETIREMENT VILLAGE
99 TOTARA ROAD, WHENUAPAI

MASTERPLAN LAYOUT
FOR APPROVAL

27 January 2023
Prepared for METLIFECARE



CONTENTS

01 SITE ARRANGEMENT3

 MASTERPLAN ARRANGEMENT 3

Project: WHENUAPAI METLIFECARE
PN: 2902

Prepared for:
METLIFECARE

Prepared by:
Reset Urban Design Ltd

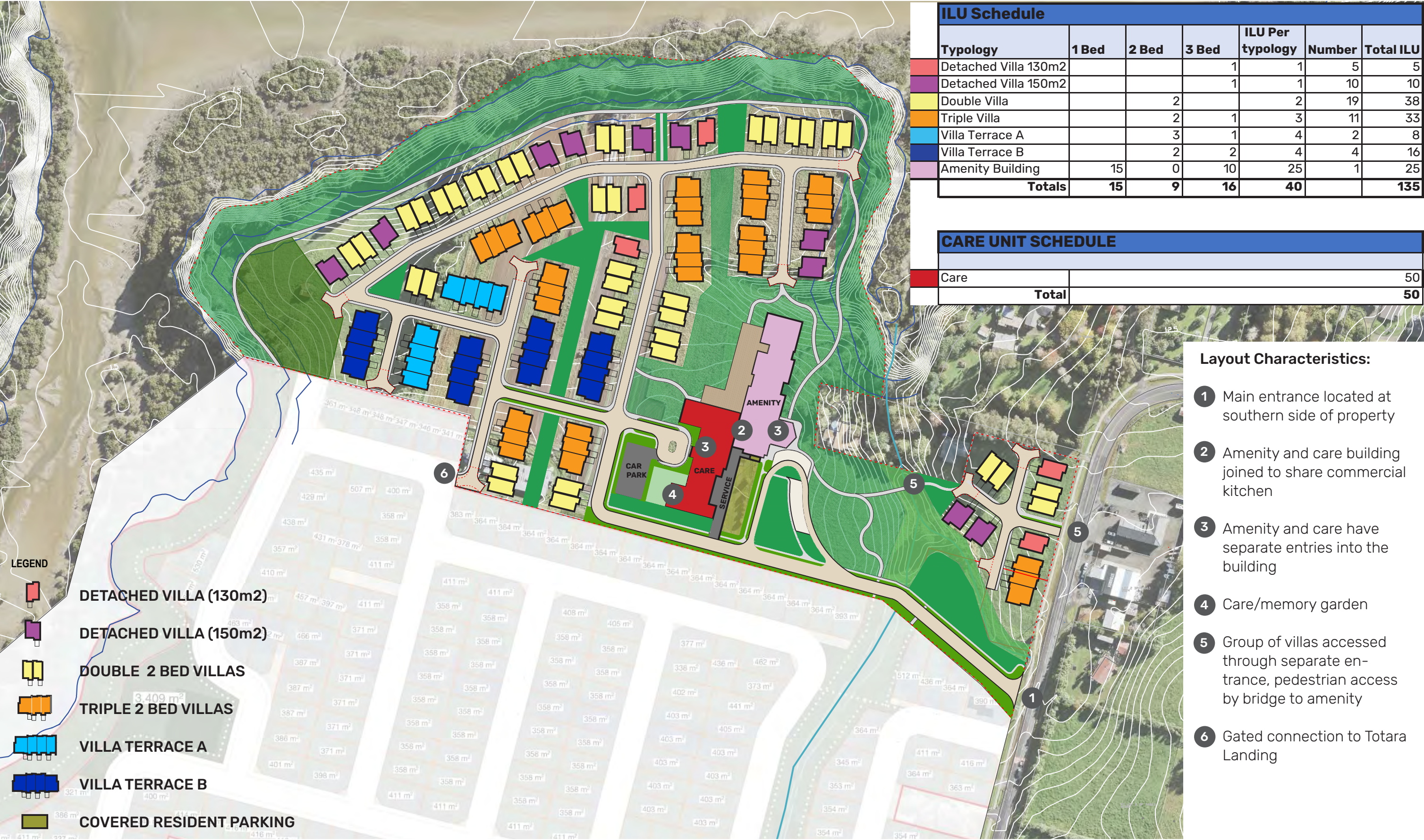
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0	For Discussion	20 January 2023	SR	JM
1	For Approval	27 January 2023	SR	JM

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01 SITE ARRANGEMENT
Masterplan Arrangement



Appendix B

CIVIL DRAWINGS

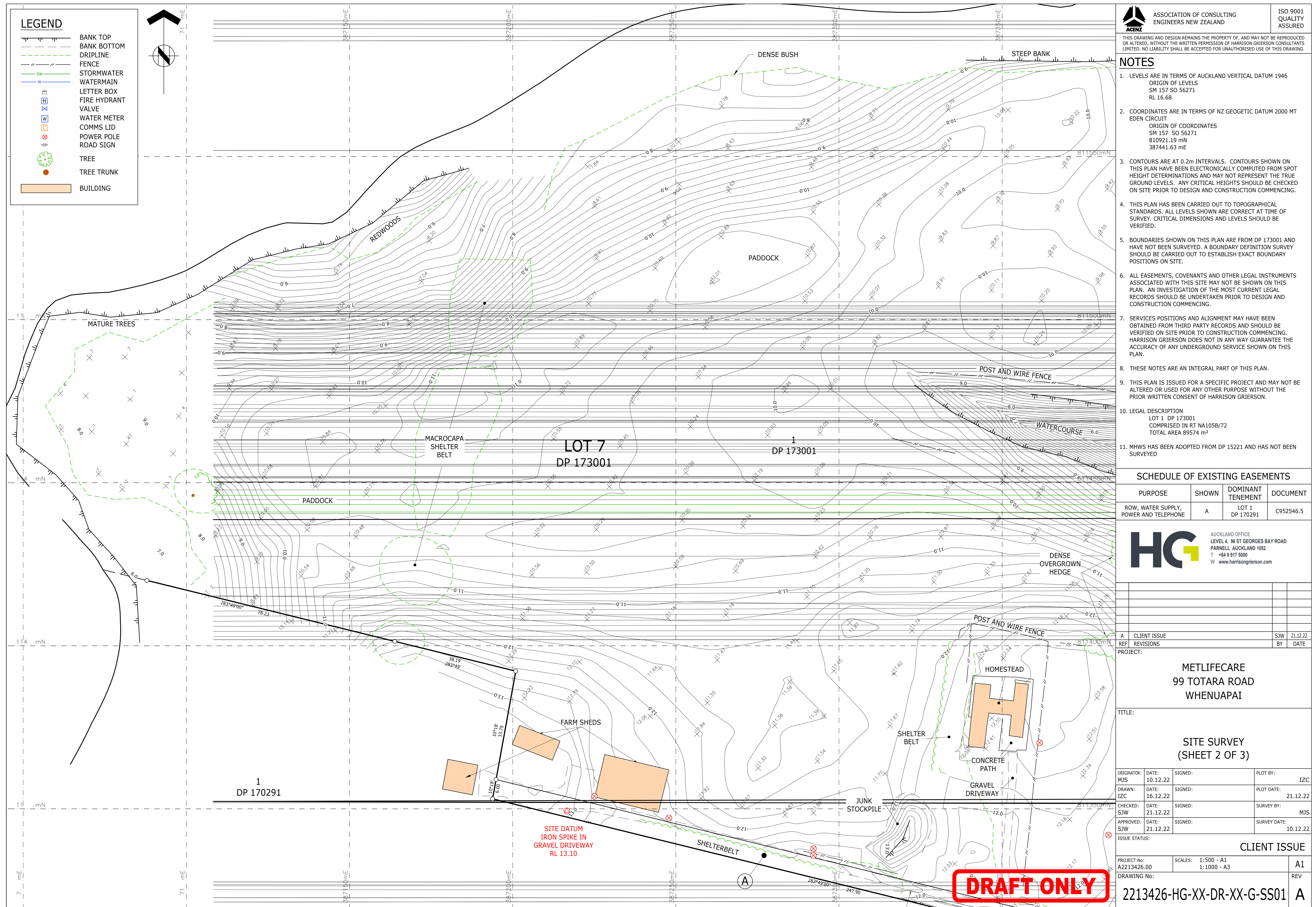
99 TOTARA ROAD DEVELOPMENT

WHENUAPAI, AUCKLAND

CIVIL FAST-TRACK CONSENT DRAWING LIST	
DRAWING LIST	DRAWING TITLE
A2213426-00-000	COVER SHEET AND DRAWING INDEX
A2213426-00-001	SAFETY IN DESIGN
A2213426-00-200	FINISHED CONTOUR PLAN
A2213426-00-220	EARTHWORKS CUT AND FILL PLAN
A2213426-00-240	EROSION AND SEDIMENT CONTROL PLAN
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A2213426-00-242	EROSION AND SEDIMENT CONTROL PLAN STANDARD DETAILS SHEET 2 OF 3
A2213426-00-243	EROSION AND SEDIMENT CONTROL PLAN STANDARD DETAILS SHEET 3 OF 3
A2213426-00-400	STORMWATER OVERALL LAYOUT PLAN
A2213426-00-401	STORMWATER LAYOUT PLAN SHEET 1 OF 2
A2213426-00-402	STORMWATER LAYOUT PLAN SHEET 2 OF 2
A2213426-00-410	WASTEWATER OVERALL LAYOUT PLAN
A2213426-00-411	WASTEWATER LAYOUT PLAN SHEET 1 OF 2
A2213426-00-412	WASTEWATER LAYOUT PLAN SHEET 2 OF 2
A2213426-00-460	STORMWATER MANAGEMENT PLAN OVERALL LAYOUT
A2213426-00-461	STORMWATER MANAGEMENT PLAN SHEET 1 OF 2
A2213426-00-462	STORMWATER MANAGEMENT PLAN SHEET 2 OF 2
A2213426-00-465	100 YEAR OVERLAND FLOWPATH OVERALL LAYOUT PLAN
A2213426-00-466	100 YEAR OVERLAND FLOW PATH CROSS SECTION POST DEVELOPMENT
A2213426-00-550	WATER RETICULATION OVERALL LAYOUT PLAN
A2213426-00-551	WATER RETICULATION LAYOUT PLAN SHEET 1 OF 2
A2213426-00-552	WATER RETICULATION LAYOUT PLAN SHEET 2 OF 2
A2213426-00-590	WATER STANDARD DETAILS SHEET 1 OF 4

A2213426-00-591	WATER STANDARD DETAILS SHEET 2 OF 4
A2213426-00-592	WATER STANDARD DETAILS SHEET 3 OF 4
A2213426-00-593	WATER STANDARD DETAILS SHEET 4 OF 4





HC

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PROJECT:

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99 TOTARA ROAD DEVELOPMENT

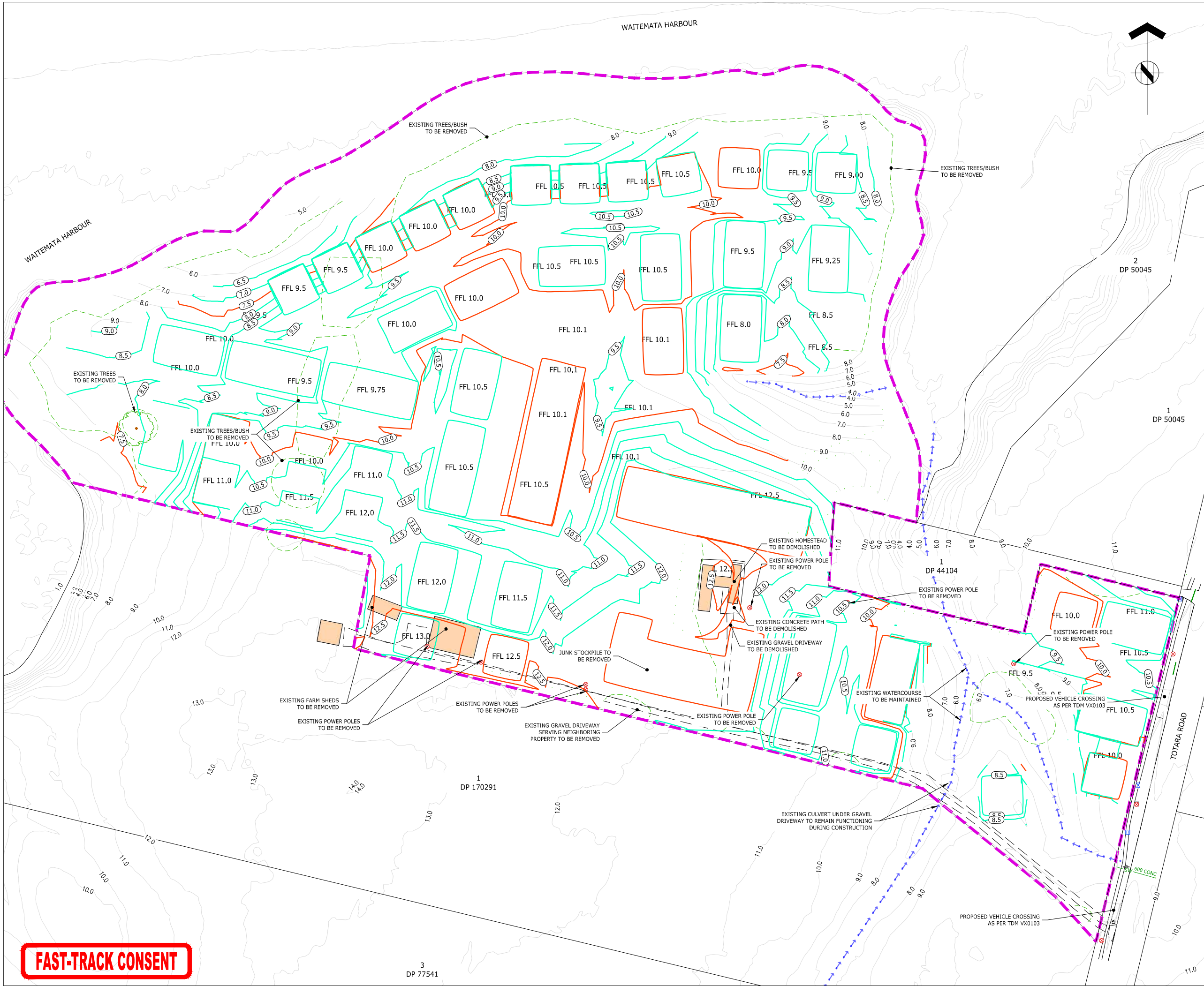
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SAFETY IN DESIGN

ISSUE STATUS:
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FAST-TRACK CONSENT



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- THE FINISHED GROUND CONTOURS ARE GENERIC PRELIMINARY CONTOURS, MORE DETAILS TO THE CONTOURS SHALL BE PROVIDED AT LATER STAGE.
- THE FFLS ARE PRELIMINARY AND SHALL BE FINALISED ONCE THE OLFP ASSESSMENT IS DONE AT LATER STAGE.

LEGEND:

FINISHED CONTOURS SHOWN AT 0.5m INTERVALS

EXISTING CONTOURS SHOWN AT 1.0m INTERVALS

SITE BOUNDARY

EXISTING STREAM



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REV	REVISIONS	BY	DATE
B	FOR FAST-TRACK CONSENT	OLZ	01.02.23
A	FOR FAST-TRACK CONSENT	RZR	27.01.23

PROJECT:

Metlifecare

99 TOTARA ROAD DEVELOPMENT

TITLE:

FINISHED CONTOURS PLAN

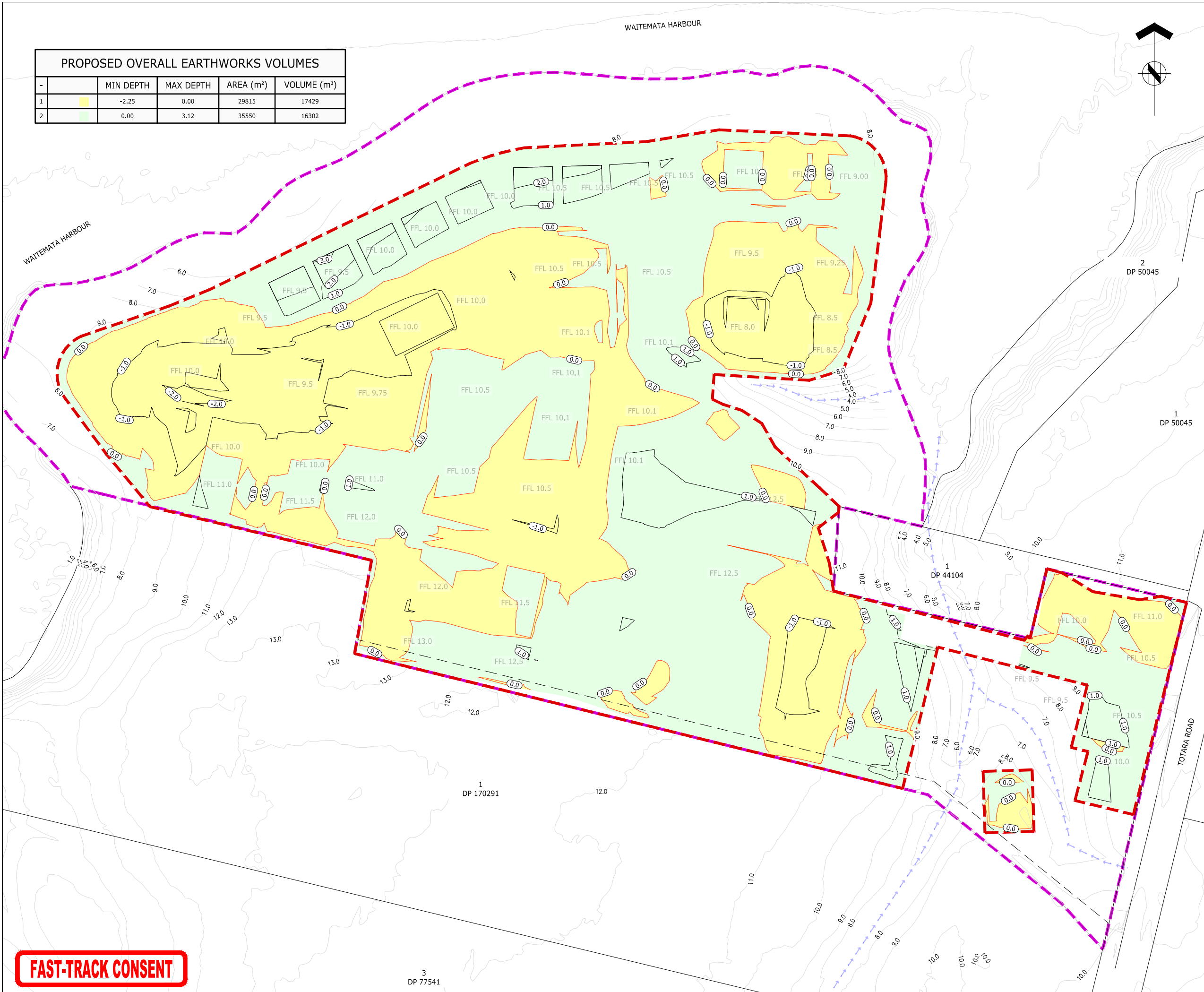
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RZR	01.2023		OLZ
DRAWN:	DATE:	SIGNED:	PLOT DATE:
OLZ	01.2023		02.02.23
CHECKED:	DATE:	SIGNED:	SURVEY BY:
RZR	27.01.23		
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
SXS	27.01.23		

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PROJECT No:	SCALES:	
A2213426-00	1:750 - A1 1:1500 - A3	A1
DRAWING No:		REV
A2213426-00-200		B

PROPOSED OVERALL EARTHWORKS VOLUMES					
-		MIN DEPTH	MAX DEPTH	AREA (m²)	VOLUME (m³)
1		-2.25	0.00	29815	17429
2		0.00	3.12	35550	16302



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LEGEND:

- EXTENT OF EARTHWORKS
- CUT CONTOURS SHOWN AT 1.0m INTERVALS
- FILL CONTOURS SHOWN AT 1.0m INTERVALS

NOTES:

- ALL WORKS AND MATERIALS ARE TO COMPLY WITH AUCKLAND COUNCIL ENGINEERING STANDARDS.
- ALL TOPSOIL TO BE STRIPPED AND STOCKPILED CLEAR OF THE PROPOSED EARTHWORKS.
- ALL EARTHWORKS SHALL COMPLY WITH THE AUCKLAND COUNCIL EROSION & SEDIMENT CONTROL GUIDELINES FOR LAND DISTURBING ACTIVITIES, TECHNICAL PUBLICATION GD05.
- THE FFLS ARE PRELIMINARY AND SHALL BE FINALISED ONCE THE OLFP ASSESSMENT IS DONE AT LATER STAGE.

Volumes indicated below are a comparison between the 200mm stripped existing ground and the finished ground levels. This excludes volumes for service trenching , temporary batter slopes and any geotechnical findings on site. Actual volumes are subject to change based on ground conditions encountered during earthworks operations.

EARTHWORKS AREA: 65,367m2

EXCLUDING UNDERCUT/OVERBREAK VOLUMES:
CUT VOLUME: 17,429m3
FILL VOLUME: 16,302m3
EXCESS CUT VOLUME: 1,127m3



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A	FOR FAST-TRACK CONSENT	RZR	27.01.23
REF	REVISIONS	BY	DATE

PROJECT:

Metlifecare

99 TOTARA ROAD DEVELOPMENT

TITLE:

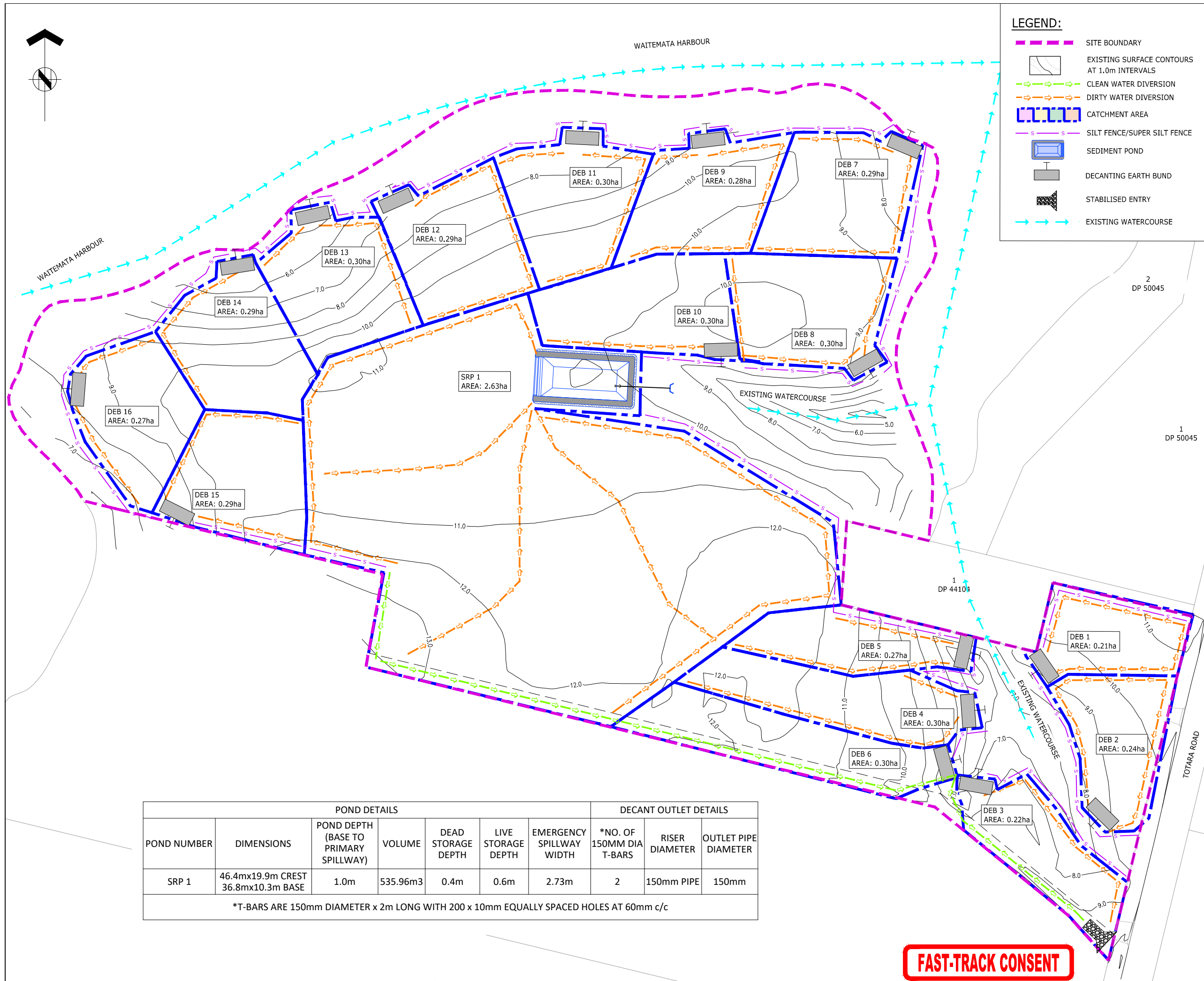
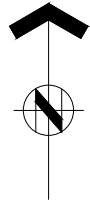
EARTHWORKS CUT AND FILL PLAN

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
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DRAWN:	DATE:	SIGNED:	PLOT DATE:
OLZ	01.2023		02.02.23
CHECKED:	DATE:	SIGNED:	SURVEY BY:
RZR	27.01.23		
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
SXS	27.01.23		

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FOR FAST-TRACK CONSENT STAGE 1

PROJECT No:	SCALES:	A1
A2213426-00	1:750 - A1 1:1500 - A3	
DRAWING No:		REV
A2213426-00-220		B



LEGEND:

- SITE BOUNDARY
- EXISTING SURFACE CONTOURS AT 1.0m INTERVALS
- CLEAN WATER DIVERSION
- DIRTY WATER DIVERSION
- CATCHMENT AREA
- SILT FENCE/SUPER SILT FENCE
- SEDIMENT POND
- DECANTING EARTH BUND
- STABILISED ENTRY
- EXISTING WATERCOURSE

NOTES:

- ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE OPERATIONAL PRIOR TO ANY OTHER WORKS COMMENCING ON SITE. THE CONTRACTOR SHALL ARRANGE FOR AND ATTEND A PRELIMINARY SEDIMENT CONTROL MEETING ON-SITE WITH THE ENGINEER.
- A COPY OF THE SEDIMENT CONTROL PLAN SHALL BE AVAILABLE ON THE SITE DURING WORK HOURS AND ALL PERSONNEL INVOLVED IN EARTHWORK ACTIVITIES ON THE SITE (INCLUDING OF SUB-CONTRACTORS) SHALL BE FAMILIAR WITH THE PLAN REQUIREMENTS AS THEY RELATE TO EROSION AND SEDIMENT CONTROL.
- ALL 'CLEAN WATER' RUNOFF FROM STABILISED SURFACES INCLUDING CATCHMENT AREAS ABOVE THE SITE SHALL BE DIVERTED AWAY FROM EARTHWORK AREAS VIA STABILISED SYSTEM TO PREVENT SURFACE EROSION.
- ALL EROSION AND SEDIMENT CONTROL SHALL COMPLY WITH THE AUCKLAND COUNCIL 'EROSION AND SEDIMENT CONTROL GUIDELINES FOR LAND DISTURBING ACTIVITIES IN THE AUCKLAND REGION GD05'.
- THE MAIN SILT CONTROL MEASURES FOR THIS SITE ARE:
 - DIVERSION OF "CLEAN WATER" FROM THE ABOVE CATCHMENTS AROUND THE EARTHWORKS AREA BY MEANS OF DIVERSION DRAINS, AND/OR OTHER APPROVED METHOD AS DIRECTED BY THE ENGINEER.
 - REMOVAL OF SEDIMENT FROM SILT-LADEN WATERS USING EITHER "SEDIMENT PONDS" OR "SILT FENCES" OR BOTH.
 - THAT THE SITE BE STABILISED AGAINST EROSION AS SOON AS PRACTICABLE AND IN A PROGRESSIVE MANNER AS EARTHWORKS ARE FINISHED OVER VARIOUS AREAS OF THE SITE.
 - MAINTENANCE OF ALL SEDIMENT CONTROL MEASURES AS REQUIRED.
- FURTHER SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY THE ENGINEER AS THE PROJECT ADVANCES. THESE WILL BE INSTALLED AS AND WHERE DIRECTED BY THE ENGINEER. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT THE SITE HAS EFFECTIVE MEASURES OPERATING AT ALL TIMES.
- ALL SEDIMENT PONDS ARE TO BE FLOCCULATED WITH POLY ALUMINIUM CHLORIDE (PAC). SETUP OF THE PAC DOSING SYSTEM IS TO BE UNDERTAKEN BY A SUITABLY QUALIFIED SPECIALIST.
- POND LOCATIONS CAN BE ALTERED ON SITE AFTER CONSULTATION WITH THE ENGINEER.
- SUPER SILT FENCES TO BE PROVIDED ALONG RIPARIAN MARGINS OR ESPLANADE RESERVES WITHIN THE EARTHWORKS BOUNDARY, AND ALONG THE BOUNDARY WITH HARBOUR AS INDICATED.

REF	REVISIONS	BY	DATE
B	FOR FAST-TRACK CONSENT STAGE 1	KMS	01.02.23
A	FOR FAST-TRACK CONSENT STAGE 1	KMS	27.01.23

PROJECT: Metlifecare

99 TOTARA ROAD DEVELOPMENT

TITLE:

EROSION AND SEDIMENT CONTROL PLAN

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
RZR	01.2023		OLZ
DRAWN:	DATE:	SIGNED:	PLOT DATE:
OLZ	01.2023		02.02.23
CHECKED:	DATE:	SIGNED:	SURVEY BY:
RZR	01.2023		
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
SXS	01.2023		

FOR FAST-TRACK CONSENT STAGE 1

PROJECT No:	SCALES:	A1
A2213426-00	1:750 - A1 1:1500 - A3	

DRAWING No:

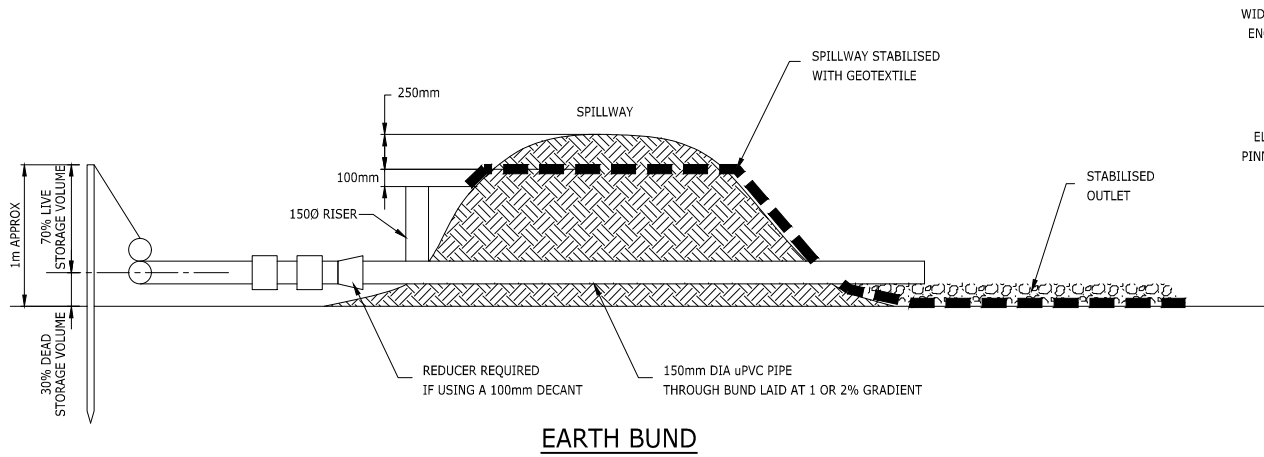
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B

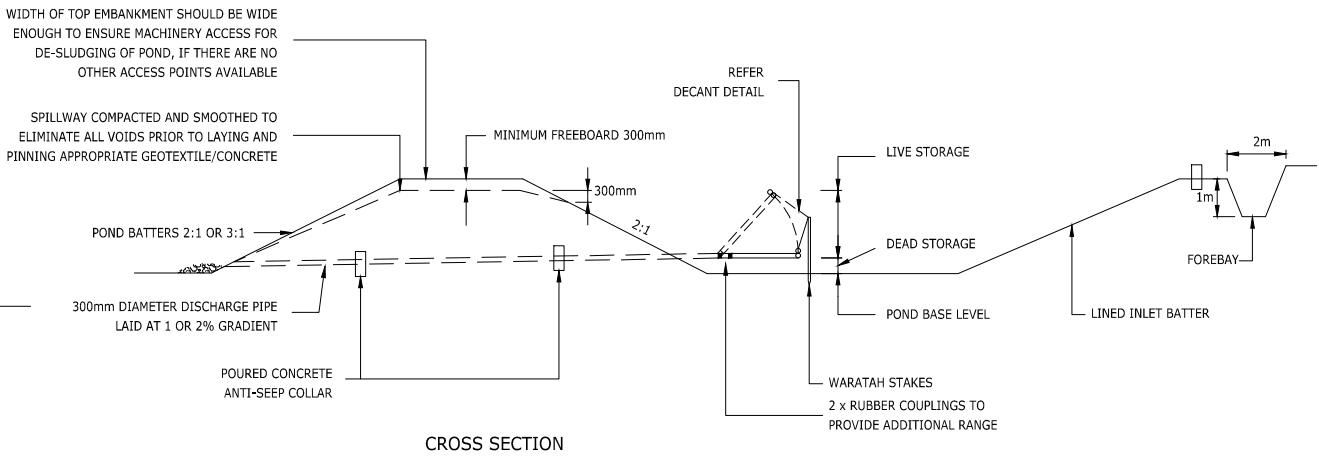
POND DETAILS							DECANT OUTLET DETAILS		
POND NUMBER	DIMENSIONS	POND DEPTH (BASE TO PRIMARY SPILLWAY)	VOLUME	DEAD STORAGE DEPTH	LIVE STORAGE DEPTH	EMERGENCY SPILLWAY WIDTH	*NO. OF 150MM DIA T-BARS	RISER DIAMETER	OUTLET PIPE DIAMETER
SRP 1	46.4mx19.9m CREST 36.8mx10.3m BASE	1.0m	535.96m3	0.4m	0.6m	2.73m	2	150mm PIPE	150mm

*T-BARS ARE 150mm DIAMETER x 2m LONG WITH 200 x 10mm EQUALLY SPACED HOLES AT 60mm c/c

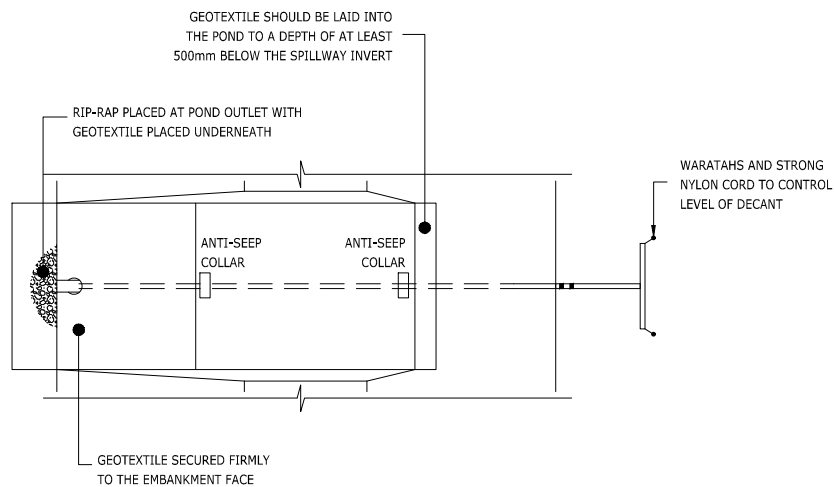
FAST-TRACK CONSENT



EARTH BUND

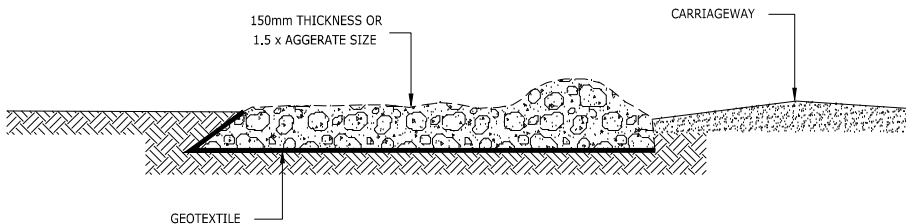


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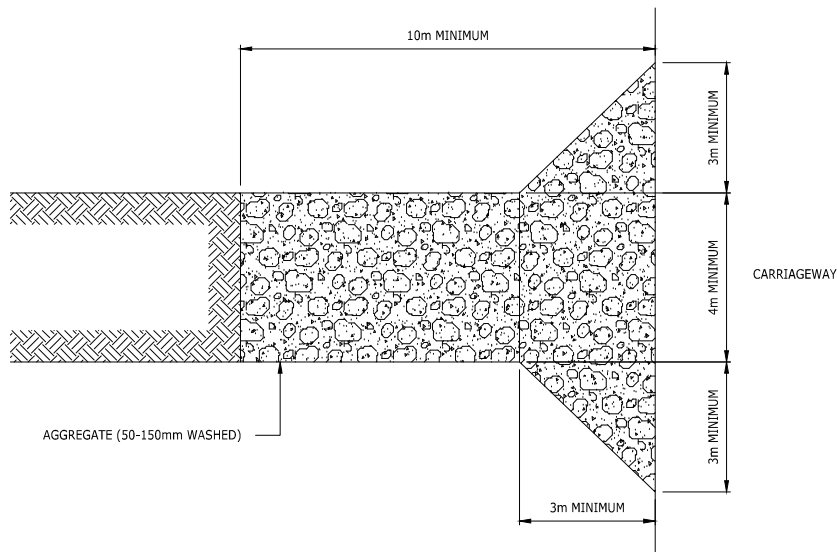


PLAN

SEDIMENT RETENTION POND



SIDE ELEVATION



PLAN VIEW

STABILISED CONSTRUCTION ENTRANCE

STABILISED CONSTRUCTION ENTRANCE - SPECIFICATIONS:

APPLICATION

USE A STABILISED CONSTRUCTION ENTRANCE AT ALL POINTS OF CONSTRUCTION SITE INGRESS AND EGRESS WITH A CONSTRUCTION PLAN LIMITING TRAFFIC TO THESE ENTRANCES ONLY.

DESIGN:

- CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS AND OTHER UNSUITABLE MATERIAL AND PROPERLY GRADE IT.
- LAY WOVEN GEOTEXTILE; PIN DOWN EDGES AND OVERLAP JOINS;
- PROVIDE DRAINAGE TO CARRY RUNOFF FROM THE STABILISED CONSTRUCTION ENTRANCE TO A SEDIMENT CONTROL MEASURE.
- PLACE AGGREGATE TO THE SPECIFICATIONS BELOW AND SMOOTH IT.

STABILISED CONSTRUCTION ENTRANCE AGGREGATE SPECIFICATIONS:

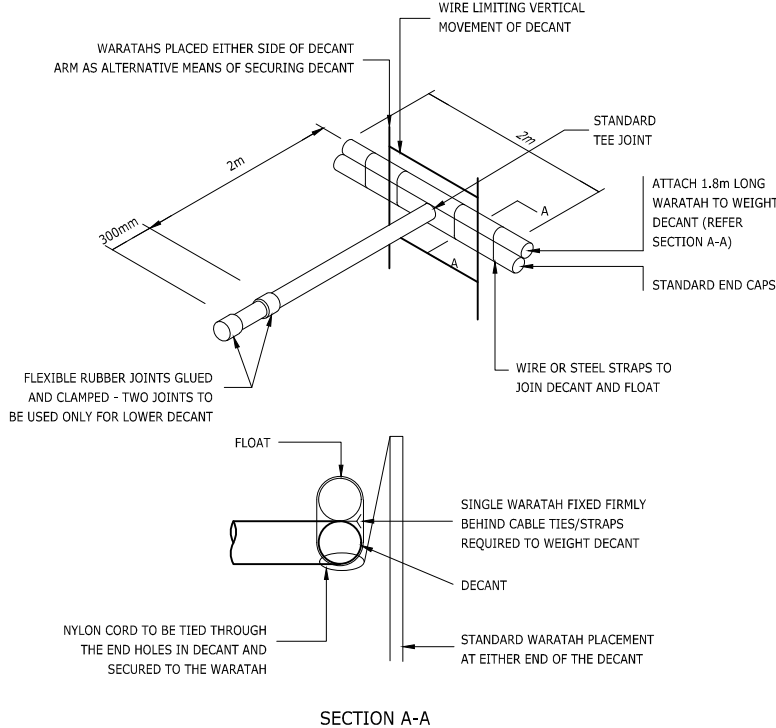
AGGREGATE SIZE	50-150mm WASHED AGGREGATE
THICKNESS	150mm MINIMUM OR 1.5 x AGGREGATE SIZE
LENGTH	10m MINIMUM LENGTH RECOMMENDED
WIDTH	4m MINIMUM

MAINTENANCE

- MAINTAIN THE STABILISED CONSTRUCTION ENTRANCE IN A CONDITION TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. AFTER EACH RAINFALL INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT FROM THE STABILISED CONSTRUCTION ENTRANCE AND CLEAN OUT AS NECESSARY.
- WHEN WHEEL WASHING IS ALSO REQUIRED, ENSURE THIS IS DONE ON AN AREA STABILISED WITH AGGREGATE WHICH DRAINS TO AN APPROVED SEDIMENT RETENTION FACILITY.

NUMBER OF DECANTS FOR EACH POND SHALL BE AS FOLLOWS:

- UP TO 1.5HA CATCHMENT - 1 DECANT
- 1.5-3.0HA CATCHMENT - 2 DECANTS
- 3 TO 5 HA CATCHMENT - 3 DECANTS



SECTION A-A

SEDIMENT RETENTION POND - DECANT DETAIL

FAST-TRACK CONSENT



ASSOCIATION OF CONSULTING
ENGINEERS NEW ZEALAND

ISO 9001
QUALITY
ASSURED

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NOTES:

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- ALL 'CLEAN WATER' RUNOFF FROM STABILISED SURFACES INCLUDING CATCHMENT AREAS ABOVE THE SITE SHALL BE DIVERTED AWAY FROM EARTHWORK AREAS VIA STABILISED SYSTEM TO PREVENT SURFACE EROSION.
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W www.harrisongrierson.com

B	FOR FAST-TRACK CONSENT STAGE 1	KMS	01.02.23
A	FOR FAST-TRACK CONSENT STAGE 1	KMS	27.01.23
REF	REVISIONS	BY	DATE

PROJECT:



99 TOTARA ROAD DEVELOPMENT

TITLE:

EROSION SEDIMENT CONTROL PLAN
STANDARD DETAILS
SHEET 1 OF 3

ORIGINATOR: RZR	DATE: 01.2023	SIGNED:	PLOT BY: OLZ
DRAWN: OLZ	DATE: 01.2023	SIGNED:	PLOT DATE: 02.02.23
CHECKED: RZR	DATE: 01.2023	SIGNED:	SURVEY BY:
APPROVED: SXS	DATE: 01.2023	SIGNED:	SURVEY DATE:

ISSUE STATUS:

FOR FAST-TRACK CONSENT STAGE 1

PROJECT No: A2213426-00	SCALES: 1:750 - A1 1:1500 - A3	A1
DRAWING No:		REV

A2213426-00-241

B

ROCK CHECK DAM

FAST-TRACK CONSENT

NOTES:

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B	FOR FAST-TRACK CONSENT STAGE 1	KMS	01.02.23
A	FOR FAST-TRACK CONSENT STAGE 1	KMS	27.01.23
REF	REVISIONS	BY	DATE

REF	REVISIONS	BY	DATE
PROJECT: M			

Metlifecare

99 TOTARA ROAD DEVELOPMENT

TITLE: _____

EROSION SEDIMENT CONTROL PLAN
STANDARD DETAILS
SHEET 2 OF 3

ORIGINATOR: RZR	DATE: 01.2023	SIGNED:	PLOT BY: OLZ
DRAWN: OLZ	DATE: 01.2023	SIGNED:	PLOT DATE: 02.02.2023
CHECKED: RZR	DATE: 01.2023	SIGNED:	SURVEY BY:
APPROVED: SXS	DATE: 01.2023	SIGNED:	SURVEY DATE:

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FOR FAST-TRACK CONSENT STAGE 1

PROJECT No:	SCALE: 1:750 - A1	
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PROJECT NO.	SCALES:	1:750 - A1	A1
A2213426-00		1:1500 - A3	

DRAWING No:	REV
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100/100/100 00 010

A2213426-00-242 B

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A2213426.00_A TOTARA ROAD\CAD\CAD - SHEETS\A2213426-00 - 240 - ESCP.DWG

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: DATA\LOCAL\AUTODESK\C3D 2022\ENU\TEMPLATE N:\1050\A2213426.00 - A TOTARA ROAD\CAD\CAD - SHEETS\A2213426-00 - 240 - ESCP.DW

- NOTES:**
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B	FOR FAST-TRACK CONSENT STAGE 1	KMS	01.02.23
A	FOR FAST-TRACK CONSENT STAGE 1	KMS	27.01.23
REF	REVISIONS	BY	DATE

PROJECT:

Metlifecare

99 TOTARA ROAD DEVELOPMENT

TITLE:

**EROSION SEDIMENT CONTROL PLAN
STANDARD DETAILS
SHEET 3 OF 3**

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
RZR	01.2023		OLZ
DRAWN:	DATE:	SIGNED:	PLOT DATE:
OLZ	01.2023		02.02.23
CHECKED:	DATE:	SIGNED:	SURVEY BY:
RZR	01.2023		
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
SXS	01.2023		

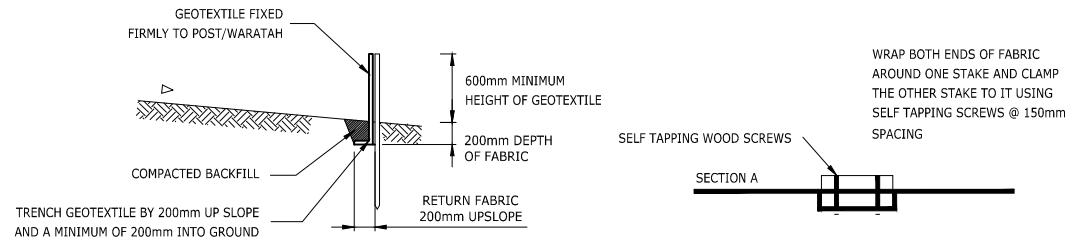
ISSUE STATUS:

FOR FAST-TRACK CONSENT STAGE 1

PROJECT No:	SCALES:	A1
A2213426-00	1:750 - A1 1:1500 - A3	
DRAWING No:		REV
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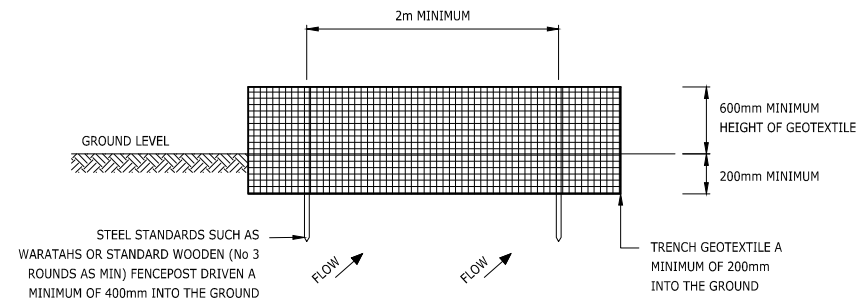
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FAST-TRACK CONSENT

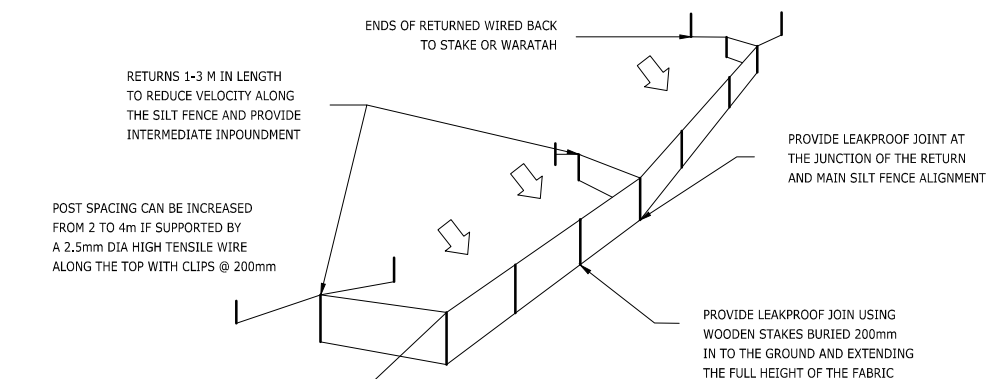


CROSS SECTION

STANDARD FABRIC JOINT

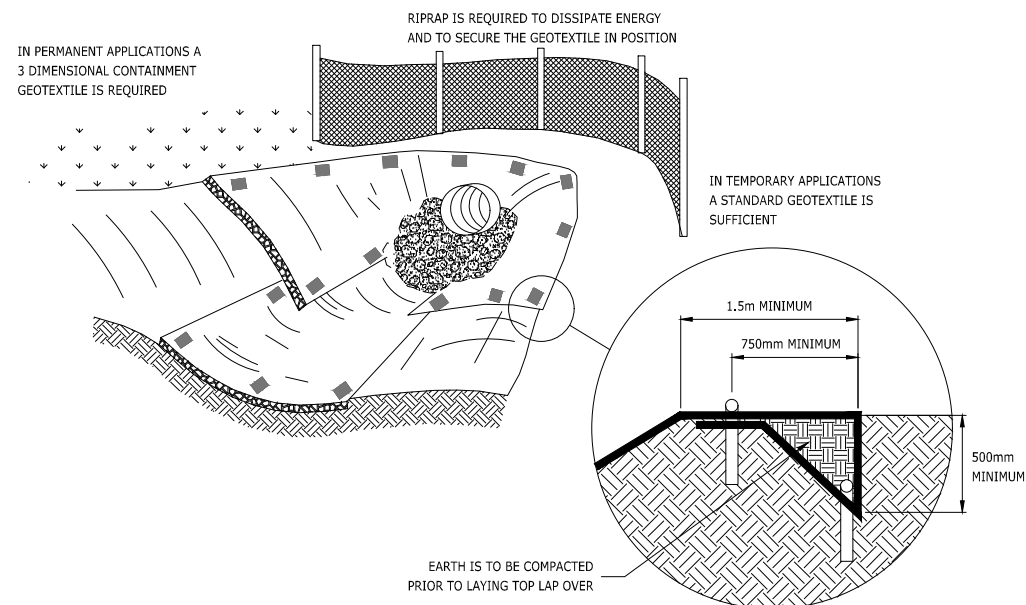


ELEVATION

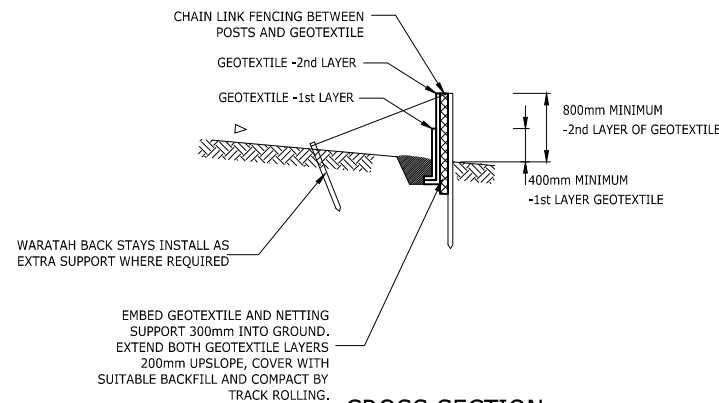


PERSPECTIVE VIEW

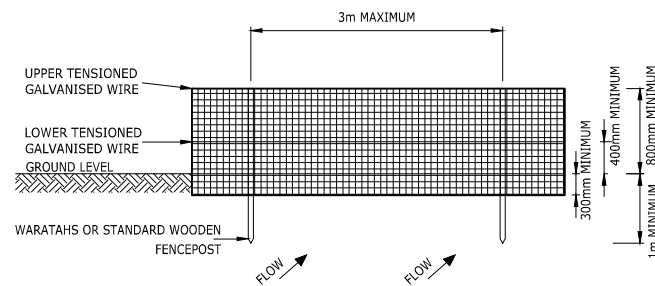
SILT FENCE CONSTRUCTION



GEOTEXTILE AT CULVERT OUTLET

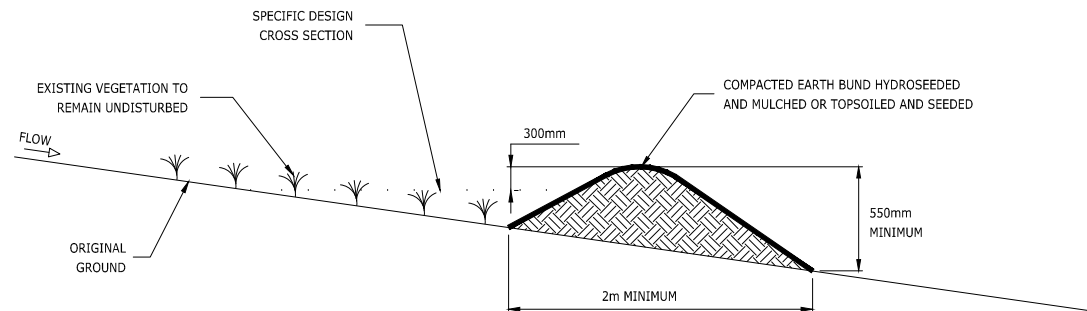


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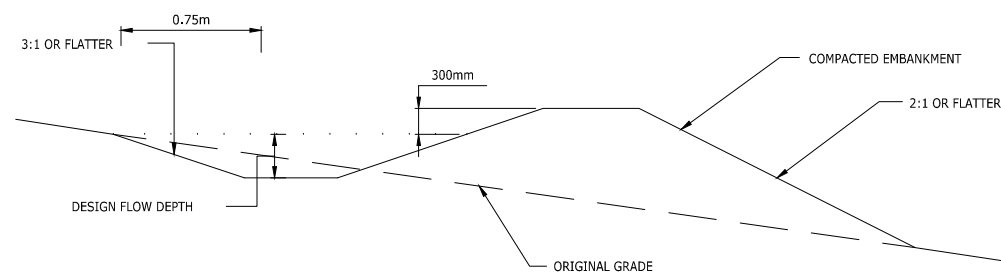


ELEVATION

SUPER SILT FENCE CONSTRUCTION



CLEANWATER RUNOFF DIVERSION BUND - CROSS SECTION



RUNOFF DIVERSION BUND - CROSS SECTION

STORMWATER NOTES:

1. ALL STORMWATER WORK TO BE COMPLIANT WITH AUCKLAND COUNCIL SW CoP AND BUILDING CODE STANDARDS.
2. ALL WORK ON EXISTING STORMWATER LINES TO BE CARRIED OUT BY AN APPROVED LICENSED CONTRACTOR AT DEVELOPERS EXPENSE.
3. ALL PIPES TO BE RCRRJ CLASS 2 UNLESS OTHERWISE STATED.
4. A 100mm INTERNAL SACRIFICIAL LAYER IS REQUIRED ON 1050-1200mm DIA MANHOLES AND 250mm INTERNAL SACRIFICIAL LAYER REQUIRED ON MANHOLES > 1200mm DIA, UNLESS OTHERWISE STATED.
5. ALL SINGLE CATCHPIT LEADS SHALL BE DN225 UPVC SN16 AND GRADE AT MIN. 1.0% FALL, UNLESS STATED OTHERWISE.
6. ALL DOUBLE CATCHPIT LEADS SHALL BE DN300 UPVC SN16 AND GRADE AT MIN. 1.0% FALL, UNLESS STATED OTHERWISE. THE CONNECTING PIPE BETWEEN CATCHPITS IS TO BE A DN300 PIPE AT THE SAME INVERT LEVEL AS THE OUTLET PIPE.

GENERAL NOTES:

1. ALL EXISTING SERVICES NEED TO BE LOCATED/MARKED AND CONFIRMED PRIOR TO WORK COMMENCING ON SITE.
2. REFER TO PARTICULAR SPECIFICATION WITHIN THE CONTRACT DOCUMENT FOR AS-BUILDING REQUIREMENTS AND CONSTRUCTION DETAILS.
3. ALL LOT CONNECTIONS TO BE 100mm UPVC SN16 UNLESS STATED OTHERWISE.
4. PIPE LENGTH IS LENGTH OF PIPE AT GRADE BETWEEN CENTRE OF MANHOLES.
5. HARDFILL BACKFILL ALL TRENCHES BELOW CARRIAGEWAY AND AS SHOWN WITH GAP 65.
6. ALL MANHOLES ARE TO BE 1050mm Ø WITH HEAVY DUTY LIDS AND CAST IRON COVERS IN PAVEMENT AREAS, UNLESS STATED OTHERWISE.
7. POLYSTYRENE PACK BETWEEN ANY CROSS OVERS WITH CLEARANCE LESS THAN 300mm.
8. FOR SERVICE TRENCH DETAILS REFER TO DRAWINGS A2213426-00-700.
9. ALL WORK DEEMED BY THE ENGINEER OR AUCKLAND COUNCIL OFFICERS AS BEING SUBSTANDARD WORK SHALL BE RECTIFIED AT THE CONTRACTORS EXPENSE.
10. THE FFLS ARE PRELIMINARY AND SHALL BE FINALISED ONCE THE OLFP ASSESSMENT IS DONE AT LATER STAGE.

HC

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B	FOR FAST-TRACK CONSENT	OLZ	01.02.23
A	FOR FAST-TRACK CONSENT	OLZ	27.01.23
REF	REVISIONS	BY	DATE

PROJECT:



99 TOTARA ROAD DEVELOPMENT

TITLE:

STORMWATER OVERALL
LAYOUT PLAN

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
RZR	01.2023		OLZ
DRAWN:	DATE:	SIGNED:	PLOT DATE:
OLZ	01.2023		02.02.23
CHECKED:	DATE:	SIGNED:	SURVEY BY:
RZR	27.01.23		
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
SXS	27.01.23		

ISSUE STATUS:

FOR FAST-TRACK CONSENT STAGE 1

PROJECT No: A2213426-00	SCALES: 1:1000 - A1 1:2000 - A3	A1
DRAWING No:		REV
A2213426-00-400		B

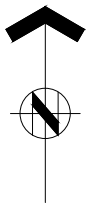
NOTES:

1. THE STORMWATER MANAGEMENT/DESIGN FOR THE DEVELOPMENT WILL BE PART OF A SITE'S SPECIFIC STORMWATER MANAGEMENT PLAN.
2. THE STORMWATER LAYOUT SHOWN ON THIS PLAN IS A GENERIC PLAN. FURTHER LAYOUTS WILL BE PROVIDED AT LATER STAGE ONCE THE LAYOUT IS CONFIRMED.

REFER TO DWG A2213426-00-401

REFER TO DWG A2213426-00-402

FAST-TRACK CONSENT



WAITEMATA HARBOUR



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LIMITED. NO LIABILITY SHALL BE ACCEPTED FOR UNAUTHORISED USE OF THIS DRAWING.

NOTES:

- REFER TO DWG A2213426-00-400 FOR
STORMWATER AND GENERAL NOTES.
- ALL PIPES SIZE SHOWN ON THESES PLANS WILL
BE SUBJECT TO FINAL DESIGN TO CONFIRM
THEIR SIZE.
- THE FFLS ARE PRELIMINARY AND SHALL BE
FINALISED ONCE THE OLPF ASSESSMENT IS
DONE AT LATER STAGE.

LEGEND:

- SITE BOUNDARY
- PROPOSED STORMWATER LINE (PVT)
- PROPOSED STORMWATER
MANHOLE (PVT)
- PROPOSED STORMWATER OUTLET
- PROPOSED WASTEWATER LINE
- PROPOSED WASTEWATER MANHOLE



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B	FOR FAST-TRACK CONSENT	OLZ	01.02.23
A	FOR FAST-TRACK CONSENT	OLZ	27.01.23
REF	REVISIONS	BY	DATE

PROJECT:
Metlifecare
99 TOTARA ROAD DEVELOPMENT

TITLE:
**STORMWATER LAYOUT PLAN
SHEET 1 OF 2**

ORIGINATOR: RZR	DATE: 01.2023	SIGNED:	PLOT BY: OLZ
DRAWN: OLZ	DATE: 01.2023	SIGNED:	PLOT DATE: 02.02.23
CHECKED: RZR	DATE: 27.01.23	SIGNED:	SURVEY BY:
APPROVED: SXS	DATE: 27.01.23	SIGNED:	SURVEY DATE:

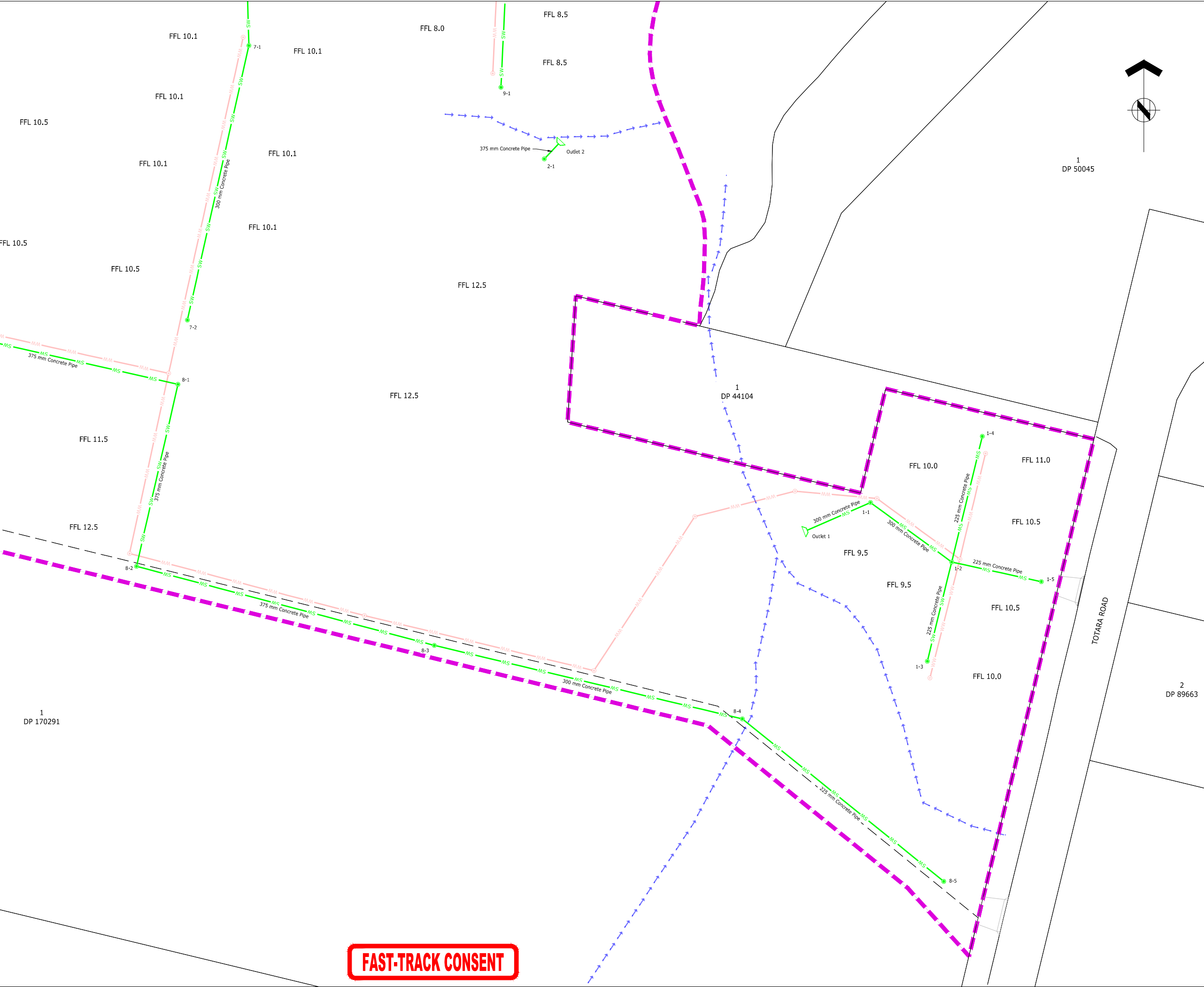
ISSUE STATUS:
FOR FAST-TRACK CONSENT STAGE 1

PROJECT No: A2213426-00	SCALES: 1:500 - A1 1:1000 - A3	A1
DRAWING No:		REV

A2213426-00-401

B

FAST-TRACK CONSENT





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NOTES:

- REFER TO DWG A2213426-00-400 FOR STORMWATER AND GENERAL NOTES.
- ALL PIPES SIZE SHOWN ON THESES PLANS WILL BE SUBJECT TO FINAL DESIGN TO CONFIRM THEIR SIZE.
- THE FFLS ARE PRELIMINARY AND SHALL BE FINALISED ONCE THE OLP ASSESSMENT IS DONE AT LATER STAGE.

LEGEND:

-  SITE BOUNDARY
-  PROPOSED STORMWATER LINE (PVT)
-  PROPOSED STORMWATER MANHOLE (PVT)
-  PROPOSED STORMWATER OUTLET
-  PROPOSED WASTEWATER LINE
-  PROPOSED WASTEWATER MANHOLE



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B	FOR FAST-TRACK CONSENT	OLZ	01.02.23
A	FOR FAST-TRACK CONSENT	OLZ	27.01.23
REF	REVISIONS	BY	DATE

PROJECT:



99 TOTARA ROAD DEVELOPMENT

TITLE:

STORMWATER LAYOUT PLAN
SHEET 2 OF 2

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
RZR	01.2023		OLZ
DRAWN:	DATE:	SIGNED:	PLOT DATE:
OLZ	01.2023		02.02.23
CHECKED:	DATE:	SIGNED:	SURVEY BY:
RZR	27.01.23		
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
SXS	27.01.23		

ISSUE STATUS:

FOR FAST-TRACK CONSENT STAGE 1

PROJECT No:	SCALES:	A1
A2213426-00	1:500 - A1 1:1000 - A3	
DRAWING No:		REV
A2213426-00-402		B

FAST-TRACK CONSENT

WASTEWATER NOTES:

1. ALL WASTEWATER WORK TO BE COMPLIANT WITH THE BUILDING CODE AND WATERCARE SERVICES LIMITED CODE OF PRACTICE.
2. ALL WORKS ON CONNECTIONS TO THE LIVE WASTEWATER NETWORKS TO BE CARRIED OUT BY WATERCARE/VEOLIA WATER AT DEVELOPERS EXPENSE.
3. ALL PIPES TO BE UPVC SN16 UNLESS SHOWN OTHERWISE.
4. ALL MANHOLE LIDS/COVERS ARE TO BE INSTALLED AT FINISHED GROUND LEVEL, AND FITTED WITH A STAINLESS STEEL SAFETY GRILLE SUPPORTED BY THE MANHOLE FRAME AND CAPABLE OF CARRYING A 100kg POINT LOAD ANYWHERE. THE GRILLE SHALL HAVE A PATTERN WITH OPENINGS THAT DO NOT PASS A 150mm DIAMETER SPHERE.
5. ANY CHANGES TO DESIGN MUST BE APPROVED IN WRITING BY APPROVED WSL CONTRACTOR.

GENERAL NOTES:

1. ALL EXISTING SERVICES NEED TO BE LOCATED/MARKED AND CONFIRMED PRIOR TO WORK COMMENCING ON SITE.
2. REFER TO PARTICULAR SPECIFICATION WITHIN THE CONTRACT DOCUMENT FOR AS-BUILDING REQUIREMENTS AND CONSTRUCTION DETAILS.
3. ALL LOT CONNECTIONS TO BE 100mm UPVC SN16 UNLESS STATED OTHERWISE.
4. PIPE LENGTH IS LENGTH OF PIPE AT GRADE BETWEEN CENTRE OF MANHOLES.
5. HARDFILL BACKFILL ALL TRENCHES BELOW CARRIAGEWAY AND AS SHOWN WITH GAP 65.
6. ALL MANHOLES ARE TO BE 1050mm Ø WITH HEAVY DUTY LIDS AND CAST IRON COVERS IN PAVEMENT AREAS, UNLESS STATED OTHERWISE.
7. POLYSTYRENE PACK BETWEEN ANY CROSS OVERS WITH CLEARANCE LESS THAN 300mm.
8. FOR SERVICE TRENCH DETAILS REFER TO DRAWINGS A2213426-00-700.
9. ALL WORK DEEMED BY THE ENGINEER OR AUCKLAND COUNCIL OFFICERS AS BEING SUBSTANDARD WORK SHALL BE RECTIFIED AT THE CONTRACTORS EXPENSE.
10. THE FFLS ARE PRELIMINARY AND SHALL BE FINALISED ONCE THE OLFP ASSESSMENT IS DONE AT LATER STAGE.



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A	FOR FAST-TRACK CONSENT	OLZ	27.01.23
REF	REVISIONS	BY	DATE

PROJECT:



99 TOTARA ROAD DEVELOPMENT

TITLE:

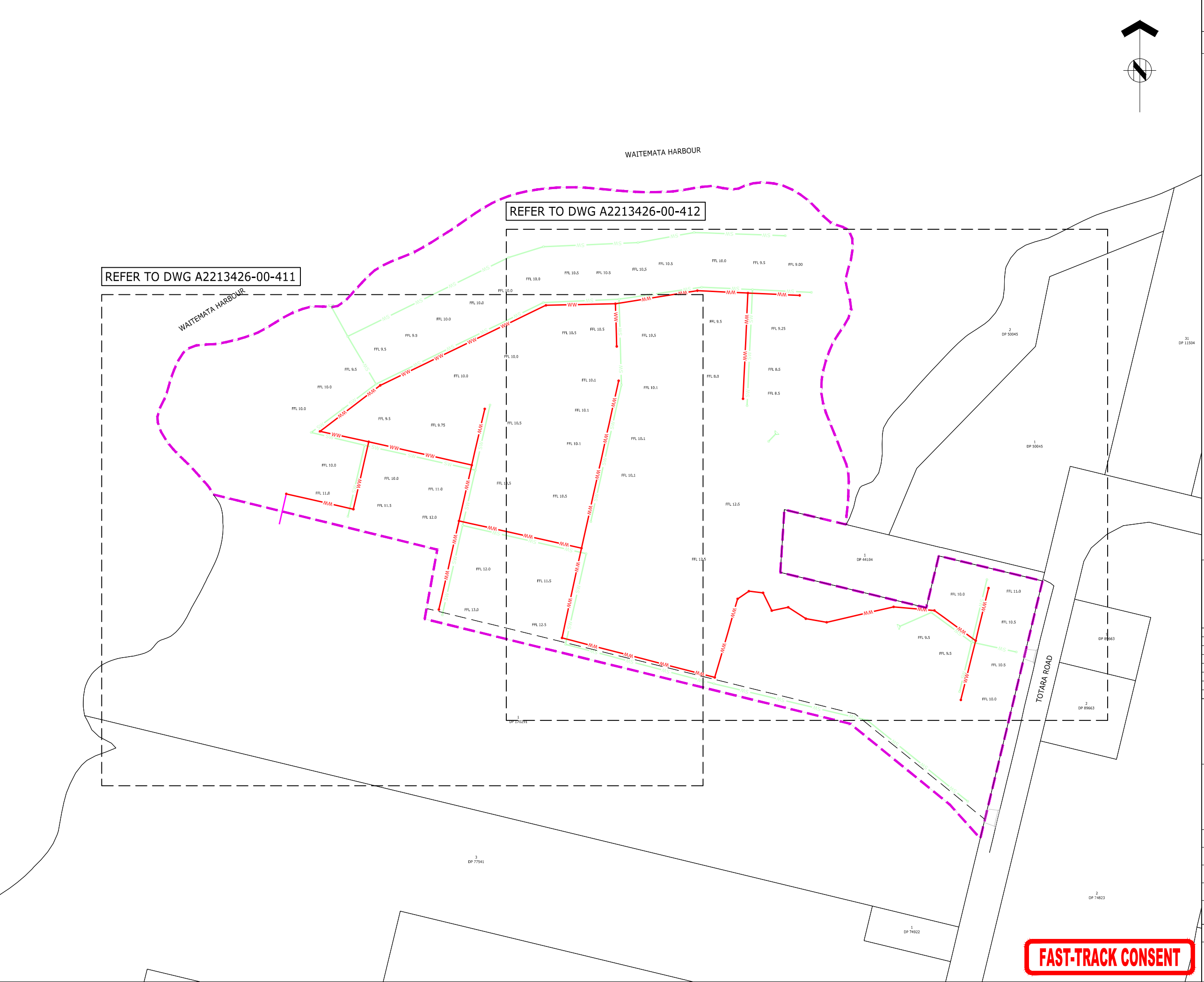
WASTEWATER OVERALL
LAYOUT PLAN

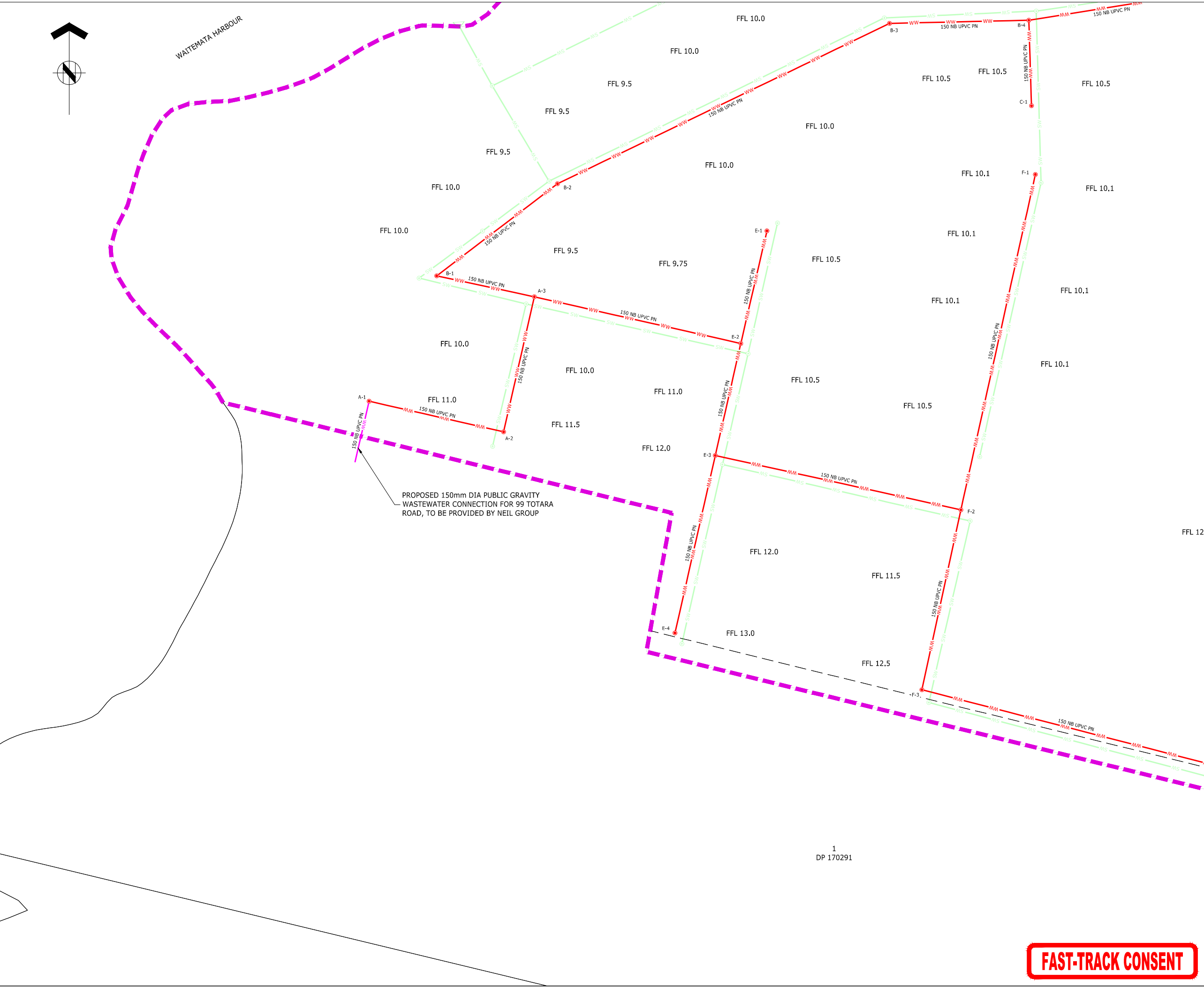
ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
RZR	01.2023		OLZ
DRAWN:	DATE:	SIGNED:	PLOT DATE:
OLZ	01.2023		02.02.23
CHECKED:	DATE:	SIGNED:	SURVEY BY:
RZR	27.01.23		
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
SXS	27.01.23		

ISSUE STATUS:

FOR FAST-TRACK CONSENT STAGE 1

PROJECT No:	SCALES:	A1
A2213426-00	1:1000 - A1 1:2000 - A3	
DRAWING No:		REV
A2213426-00-410		B







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NOTES:

1.

REFER TO DWG A2213426-00-410 FOR
WASTEWATER AND GENERAL NOTES.

2.

THE FFLS ARE PRELIMINARY AND SHALL BE
FINALISED ONCE THE OLFP ASSESSMENT IS DONE
AT LATER STAGE.

LEGEND:

SITE BOUNDARY

SW

PROPOSED STORMWATER LINE (PVT)

PROPOSED STORMWATER
MANHOLE (PVT)

PROPOSED STORMWATER OUTLET

WW

PROPOSED WASTEWATER LINE (PVT)

PROPOSED WASTEWATER
MANHOLE (PVT)

WW

PROPOSED PUBLIC WASTEWATER
PIPE TO BE PROVIDED TO THE
DEVELOPMENT BY THE
NEIGHBOURING SITE (NEIL GROUP)

HG

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A	FOR FAST-TRACK CONSENT	OLZ	27.01.23
REF	REVISIONS	BY	DATE

PROJECT:

Metlifecare

99 TOTARA ROAD DEVELOPMENT

TITLE:

WASTEWATER LAYOUT PLAN
SHEET 1 OF 2

ORIGINATOR: RZR	DATE: 01.2023	SIGNED:	PLOT BY: OLZ
DRAWN: OLZ	DATE: 01.2023	SIGNED:	PLOT DATE: 02.02.23
CHECKED: RZR	DATE: 27.01.23	SIGNED:	SURVEY BY:
APPROVED: SXS	DATE: 27.01.23	SIGNED:	SURVEY DATE:

ISSUE STATUS:

FOR FAST-TRACK CONSENT STAGE 1

PROJECT No: A2213426-00	SCALES: 1:500 - A1 1:1000 - A3	A1
DRAWING No:	REV	

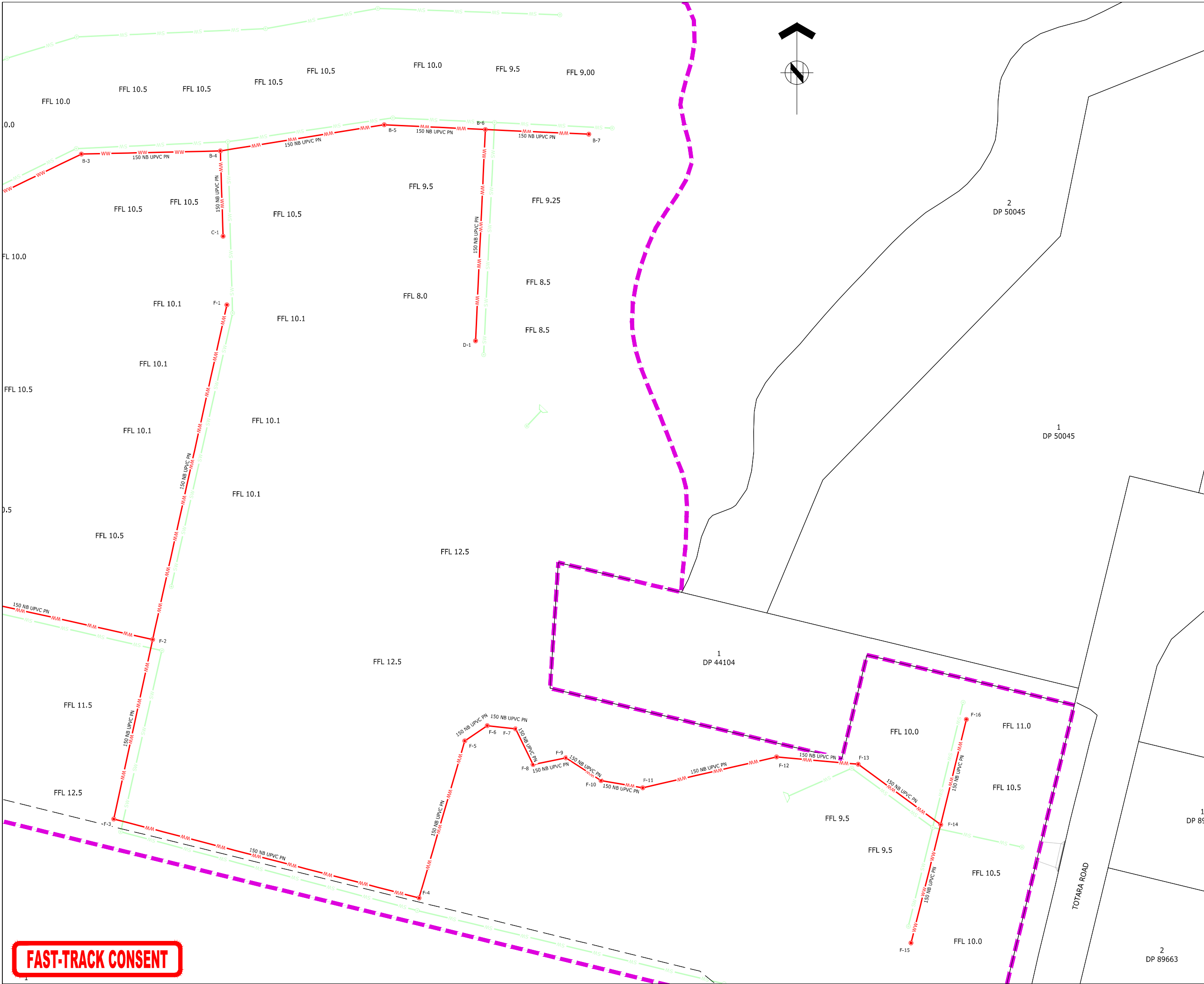
A2213426-00-411

B

1
DP 170291

FAST-TRACK CONSENT

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: DATA\LOCAL\AUTODESK\C3D 2022\ENU\TEMPLATE N:\1050\A2213426.00_A TOTARA ROAD\CAD\CAD - SHEETS\A2213426-00 - 410 - WASTEWATER OVERALL LAYOUT PLAN.DWG





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NOTES:

1.

REFER TO DWG A2213426-00-410 FOR
WASTEWATER AND GENERAL NOTES.

2.

THE FFLS ARE PRELIMINARY AND SHALL BE
FINALISED ONCE THE OLFP ASSESSMENT IS DONE
AT LATER STAGE.

LEGEND:

SITE BOUNDARY

PROPOSED STORMWATER LINE (PVT)

PROPOSED STORMWATER
MANHOLE (PVT)

PROPOSED STORMWATER OUTLET

PROPOSED WASTEWATER LINE (PVT)

PROPOSED WASTEWATER
MANHOLE (PVT)

PROPOSED PUBLIC WASTEWATER
PIPE TO BE PROVIDED TO THE
DEVELOPMENT BY THE
NEIGHBOURING SITE (NEIL GROUP)

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A	FOR FAST-TRACK CONSENT	OLZ 27.01.23
REF	REVISIONS	BY DATE

PROJECT:

Metlifecare

99 TOTARA ROAD DEVELOPMENT

TITLE:

WASTEWATER LAYOUT PLAN
SHEET 2 OF 2

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
RZR	01.2023		OLZ
DRAWN:	DATE:	SIGNED:	PLOT DATE:
OLZ	01.2023		02.02.23
CHECKED:	DATE:	SIGNED:	SURVEY BY:
RZR	27.01.23		
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
SXS	27.01.23		

ISSUE STATUS:

FOR FAST-TRACK CONSENT STAGE 1

PROJECT No:	SCALES:	A1
A2213426-00	1:500 - A1 1:1000 - A3	
DRAWING No:		REV
A2213426-00-412		B

FAST-TRACK CONSENT

NOTES:

1. REFER TO DWG A2213426-00-400 FOR
STORMWATER AND GENERAL NOTES.
2. ALL THE STORMWATER MANAGEMENT DECICES
SUCH AS TANKS AND FILTERS WILL BE SUBJECT TO
FURTHER DESIGN CONSIDERATION PRIOR TO
LODGING RC. WHAT IS SHOWN ON THESE PLANS IS
INDICATIVE ONLY
3. THE FFLS ARE PRELIMINARY AND SHALL BE
FINALISED ONCE THE OLPF ASSESSMENT IS DONE
AT LATER STAGE.

LEGEND:

- 

SITE BOUNDARY
- 

PROPOSED PRIVATE STORMWATER
NETWORK
- 

PROPOSED STORMWATER OUTLET
- 

PROPOSED WASTEWATER NETWORK
- 

PERMEABLE PAVING DRIVEWAY



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B	FOR FAST-TRACK CONSENT	PZS	01.02.23
A	FOR FAST-TRACK CONSENT	KMS	27.01.23
REF	REVISIONS	BY	DATE

PROJECT:



99 TOTARA ROAD DEVELOPMENT

TITLE:

STORMWATER MANAGEMENT PLAN
OVERALL LAYOUT

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
RZR	01.2023		OLZ
DRAWN:	DATE:	SIGNED:	PLOT DATE:
OLZ	01.2023		02.02.23
CHECKED:	DATE:	SIGNED:	SURVEY BY:
RZR	27.01.23		
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
SXS	27.01.23		

ISSUE STATUS:

FOR FAST-TRACK CONSENT STAGE 1

PROJECT No:	SCALES:	A1
A2213426-00	1:1000 - A1 1:2000 - A3	
DRAWING No:		REV
A2213426-00-460		B

REFER TO DWG A2213426-00-461

REFER TO DWG A2213426-00-462

FAST-TRACK CONSENT